



Sustainability
Report according
to the Global
Reporting Initiative
(GRI) guidelines

Application Level B

#### **Table of Contents**

- 4 Message from the President & CEO
- 5 External Endorsement by HR PSOR

#### Part 1 6 Agrokor and Socially Responsible Business Practices

- 7 Group Profile
- 7 Mission
- 7 Vision
- 7 Corporate values
- 8 Organizational Profile
- 8 Organization name and headquarters Countries and markets in which the organization operates Shareholder structure
- 10 Operating organizational structure

Primary companies Primary brands Awards

### Part 2 14 Report Parameters

- 14 Reporting period and cycle
- 14 Contact person for questions regarding the report and its contents
- 15 Report scope and boundary
- 16 Governance, Commitments and Engagement
- 17 Governance Structure

Mechanisms for providing recommendations to the Supervisory Board

18 List of stakeholder groups engaged by the organization

#### Part 3 20 Performance Indicators

- 22 Economic Performance Indicators
- 28 Social Performance Indicators

Labor

Community investments Product responsibility Public policy

52 Environmental Performance Indicators

#### 219 Implementation of the UN Global Compact - Communication on Progress principles in the Republic of Croatia

#### APPENDICES

Appendix 1 Shareholders
Appendix 2 List of Unions

Appendix 3 Governance System Overview

Appendix 4 Employees Involved in Report Preparation

Appendix 5 GRI Indicators

# Message from the President & CEO

#### **Agrokor and Socially Responsible Business Practices**

Dear Ladies and Gentlemen,

I am proud to present the third Sustainability Report prepared by Agrokor. It covers the 2012-2013 period and was prepared according to the Global Reporting Initiative (GRI), Version 3.0. It also includes additional sector-specific indicators for the food processing industry.

We continue to present our information on a consolidated basis for the entire group, including the economic, labor, human rights, community and product responsibility indicators. The environmental indicators are provided in a separate part of the Report, which allows us to monitor their values in the course of each year in each company presented in the Report and gives us the possibility to compare them against similar companies.

The circumstances in which we conducted our business during this reporting period continued to be challenging. The economic growth forecasts were not met, so we had to adjust our strategy to the actual market circumstances. Thus, profitability was set as the primary objective of our system, without compromising the shares of our companies in their core markets. Our intensive growth in the years preceding the crisis left us room for optimization and improvement of the efficiency of our business operations, which has helped us retain our leading position in almost all of our core activities and key markets across the region. Albeit slight, the growth achieved in the past period has proved Agrokor's strategy a successful one, ensuring long-term sustainability of our business model.

By investing in new technologies, innovativeness and knowledge of our employees, opening the Group to accept the knowledge available outside our companies through implementation of an open innovation project and using the so-acquired knowledge in local market circumstances, we have created companies that apply the best global practices in their everyday operations, which is confirmed by our results.

Strategically speaking, 2013 was also marked by the process of acquiring a controlling interest in Mercator, whose merger with Agrokor's retail group would result in the largest retail chain in the region. Such retail consolidation in the region would ensure support to regional economies. It would also result in the creation of a power extremely relevant in terms of the support it would provide to the development of small and medium-sized enterprises. Also, after Croatia joined the European Union in July of 2013, market positions of our companies changed both in the case of the common market of the European Union and in the case of each regional market. The investments we made in our competitive strength and employees in the preceding period are now paying off, which obligates us to continue to provide opportunities to all stakeholders that we interact with on a daily basis.

The social responsibility of our companies is reflected in the manner we conduct our daily activities. We invest in renewable energy sources, use biogas facilities to dispose of the by-products produced by our factories, apply energy-efficient technologies and purchase energy-efficient vehicles. The fact that the management systems of as many as 18 of our companies have been certified according to the ISO 14000 standards indicates the extent to which the corporate social responsibility approach is actually applied in practice. In 2012 Jamnica received a CSR award in the Large Enterprises category, Konzum entered a project in the competition for the European CSR award, and Ledo received a CSR award in 2013 in the Responsible Environmental Policy and Practice category. Also, the management structures of the Group and the companies belonging to the same have improved the applied standards of conduct by adopting the Mandatory Instructions for the Application of Competition Regulations. We are currently working on our internal anti-corruption rules that we plan to adopt in the next period.



As a member of business and trade associations that have defined sustainability as the cornerstone of their business operations and as a member of the UN Global Compact, the fundamental principles of which we accept and promote, the release of this Report is yet another confirmation of our commitment to achieving longterm sustainability of our business operations. As the largest private business group in the region, we are aware of our responsibility to promote lasting values and believe that our practices affect the conduct of other enterprises. Therefore, we invite you to inform us of any suggestions or comments you might have concerning the present Report.



# External Endorsement by HR PSOR

#### Opinion on Agrokor 2012-2013 Sustainability Report

The Commission of the Steering Board of the Croatian Business Council for Sustainable Development (HR PSOR) established that the content scope of Agrokor 2012-2013 Sustainability Report was in compliance with the Global Reporting Initiative, Application Level 3. The Commission reviewed the Report in order to check whether all impact indicators were included as well as to assess the level of clarity, detail and balance of the Report in terms of its boundary. The Commission concluded that Agrokor 2012-2013 Sustainability Report was prepared in compliance with the G3 GRI Guidelines and the application level declared by Agrokor.

This Report and Agrokor previous Sustainability Reports represent by far the most complex reports any Croatian company has ever prepared, which is due to the very comprehensive and complex structure of the Group that it presents. The Report can be divided in two parts, i.e. the part presenting aggregate economic and social indicators and governance approaches at the level of the Group and the part presenting a set of environmental indicators separately for each of the 19 companies belonging to the Group. These indicators are presented in such a manner so as to allow comparison of the impacts of the subsidiaries located in four countries of the region.

Because of the mentioned structure of the Report, this was unquestionably a very large and demanding project and its authors, who manage to increase the number of indicators included in the report year after year, certainly deserve commendation. The entire document is very comprehensive and provides plenty of information, but represents a difficult reading material due to its extensive content scope. We suggest that, for the purpose of aggregating data and ensuring clarity of presentation, Agrokor tries to present its social impact indicators for both reporting years together in tabular or chart format in the future, which would facilitate reading and trend monitoring.

We have already underscored the very thorough and informative environmental data provided for each subsidiary. The quality of information as well as the manner of presenting the same are the results of years of effort put into establishing a measuring and monitoring system

producing a complex set of available indicators presented in the same manner for each company covered by the Report. In order to ensure a higher level of clarity and facilitate reading, since the Report provides a large amount of information, it would be useful to include environmental information for a period of several years, which would facilitate monitoring of environmental trends. This would also be useful in the case of Human Resources trend monitoring. It would be desirable, for the purpose of increasing the level of clarity, to convert some of the environmental indicators provided in textual format into tabular format. Since these highly valuable information and data will, due to the manner in which they are presented, remain unavailable to most of the stakeholders they are intended for, and since, in this way, Agrokor itself will not be able to use the entire potential of such information, we suggest considering the possibility of publishing a Summary Report that would cover the most important social and environmental indicators by graphically presenting the aggregate environmental impact for all subsidiaries by particular indicators. We believe that such document would represent a unique and pioneering step forward in non-financial reporting, both in Croatia and wider.

If we look at particular information, there are certainly some cases worth highlighting. Tisak's initiative for collecting old textile is truly commendable because it aims to draw public attention to collection of a special waste category, which is very important, through an organized process. However, Croatia has so far not established an organized textile collection and processing system, which is recommended.

It is nice to see that it is possible to organize industrial production in such a manner so as to ensure preservation of biodiversity (e.g. nesting of the endangered bird species Kentish plover in Solana Pag's facilities, a determining factor in the process of deciding to include Solana in the Natura 2000 network). Solana Pag provided yet another notable example of good practice by replacing the crude oil used in salt production by wood chips harvested through sustainable forestry practices. Both these examples are more than just usual "end-of-pipe" solutions because the approach used is innovative and

proactive and results in an active contribution to minimizing the impacts of industrial production.

Some activities and projects could have been presented in more detail, however. For example, a certain number of Agrokor subsidiaries reported their involvement in an initiative to collect bottle caps for the Leukemia Patients Association. The Report should have included data concerning the number of caps collected and the funds raised for the benefit of the Association for the purpose of evaluating the scope and success of the initiative. Other examples include the CarbonFree certificate obtained for Jana and the Low Carbon Technologies project. It is not clearly stated according to which criteria and on account of which activities the CarbonFree certificate was awarded or what makes Jana so different from other similar waters in the market. As far as the Low Carbon Technologies project is concerned, it remains unexplained which activities are being carried out and are planned under the project. Both examples have caught our attention, but the Report did not provide sufficient information about the same.

In conclusion, this is yet another very complex, comprehensive and informative Report prepared by Agrokor. It represents a model example of how large systems too can ensure transparent and detailed reporting. This is also a motivation for the company to keep providing more and more information and presenting positive trends in each report. We would particularly like to commend Agrokor for the level of transparency that it ensures, i.e. the negative trends are also clearly described and explained in detail, without any attempt to conceal possible unfavorable information and data by presenting them in an ambiguous way or avoiding to present them all together. We congratulate Agrokor for producing such an excellent material that, we believe, will be primarily useful to the company itself and certainly justifies the efforts put into producing it.

Commission, Steering Board, Croatian Business Council for Sustainable Development

# part 1

# Agrokor and Socially Responsible Business Practices

The Agrokor Group employed a total of 35,838 persons in all countries of the region where it operates.

Our strategy of investing into a vertical value chain, which integrates "farm to fork" production, represents one of the key factors of success and competitive strength of Agrokor companies.

By performing our operations in these and other neighboring markets, we are able to serve over 30 million customers.

# Mission, Vision and Corporate Values of Agrokor Companies

#### The mission

of the The Agrokor Group is to ensure compliance with the highest quality standards for production and distribution of food and agricultural products and to provide the customers with the best value for money through our retail network by always staying ahead of our competitors and remaining true to the principles of corporate social responsibility.

#### The vision

of The Agrokor Group is to be an internationally relevant company setting new standards of excellence in all areas of activity.

#### **Corporate Values**

We will accomplish our goals by focusing on sustainable development to drive our growth and staying committed to our corporate values in all aspects of our activity:

#### **Portfolio**

We manufacture healthy and innovative quality products for our customers, respecting tradition and customer needs and preferences. By using vertical integration from agriculture to manufacture of end products, we offer our customers an extensive range of fresh and healthy domestic products. We offer professional and friendly service, a pleasant shopping atmosphere and reasonable prices in our own network of modern and functionally equipped retail stores.

#### **Employees**

We believe our employees are the foundation of our success. We provide them a safe and stimulating working environment and the opportunity to achieve their professional goals in a corporate culture that recognizes and properly values dedication and commitment.

#### **Partners**

The success of our corporate members is closely related to fruitful partnerships with suppliers and customers. Our common goal is to increase added value in a sustainable manner.

#### **Environment**

We choose energy-efficient technologies to minimize our environmental footprint. We put great emphasis on waste management and wastewater treatment, as well as on the conservation and sustainable use of biodiversity in accordance with our socially responsible business practices.

#### Community

Our activities in the communities in which we operate facilitate the creation of transparent and stimulating environments. We help communities with donations and sponsorships in an effort to support charitable organizations, sporting and cultural events, preservation of cultural heritage, scientific and educational institutions, and activities focused on children and youth.

The Agrokor Group (hereinafter referred to as: Group or Agrokor) comprises members whose activities are governed by the same values and principles that have been driving Agrokor's growth and development since its beginnings. We are aware that our business progress is

equally dependent on the wellbeing and development of the community in which we operate as it is on the conservation of the environment. The sustainability of our business model is based on the values and principles presented in our Corporate Principles of Social Responsibility

(available at www.agrokor.hr), and we have additionally confirmed our commitment by joining the community of companies in the Republic of Croatia that have accepted corporate social responsibility as their guiding principle.

### Organizational Profile

# Organization name and headquarters

Agrokor d.d. is a stock company having its registered office at Trg Dražena Petrovića 3, Zagreb. Its majority shareholder is Ivica Todorić, the founder of the company, who holds a share of 91.67%. The remaining shares are held by the European Bank for Reconstruction and Development. Agrokor is registered as a concern for the management of companies and agricultural production and product trade. Information on its shareholder structure and registration of the company is available in the court registry of the Commercial Court in Zagreb under Reg. No. (MBS) 080020970. The development of Agrokor into the corporation it is today is presented in the figure below.

On December 31, 2013, The Agrokor Group employed a total of 35,838 persons in all countries of the region where it operates, the majority of which (25,548) was employed in the Republic of Croatia.

#### Appendix 1

Agrokor's Operating Structure

#### Strategy

Our strategy of investing into a vertical value chain, which integrates "farm to fork" production, represents one of the key factors of success and competitive strength of Agrokor companies, which has proved particularly significant after Croatia joined the European Union on July 1, 2013. As a vertically integrated system, the Group's activities include production of raw materials, food processing, retail trade, and other related activities.

The Group's commitment to apply state-of-the-art technology in its production and sales activities is reflected in the continued investments in our business activities during the reporting period, provision of opportunities for professional advancement of employees through field-specific training, as well as continued certification of our systems and standards, confirming that our objectives have been achieved. Our impact on the environment we operate in has been extraordinary, which is why the business standards adopted by the Group affect our business partners as well. The changes and improvements in their practices are, to a certain extent, a result of the patterns of conduct promoted by Agrokor through own example.

According to the sales revenue criterion, The Agrokor Group is the largest company in the Adria Region. The Group includes leading food and beverage manufacturers as well as leading retail and wholesale entities from Central and Eastern Europe. Croatia. Serbia, and Bosnia and Herzegovina are our primary markets. By performing our operations in these and other neighboring markets, we are able to serve over 30 million customers



Ivica Todorić registers **Agrokor d.d.** 



Integration of acquired businesses and focus on organic growth



Entering Serbian market Ice cream & frozen food (Frikom)

Ivica Todorić founded private company



#### **Entering New Businesses:**

Water and Beverages (Jamnica), Ice cream&frozen food (Ledo), Retail and Wholesale (Konzum), Edible Oils and Margarines (Zvijezda)



# Starting regional expansion (BiH)

Ice cream&frozen food (Leo Čitluk), Water and Beverages (Sarajevski kiseljak)



# **Total Revenues of The Agrokor Group** in 000 HRK

2011 2012 2013

Total revenues 29,362,179 30,440,358 30,730,523

# Total Liabilities structure broken down according to internal and external sources in 000 HRK

	Dec, 31, 2011	Dec, 31, 2012	Dec, 31, 2013
Total liabilities	29,164,204	30,754,070	33,084,027
Liabilities	22,549,170	25,627,383	28,558,866
Capital	6,615,034	5,126,687	4,525,161

Source: Consolidated Income Statement as of December 31, 2011, 2012 and 2013



#### **Further expansion**

SERBIA: Retail and Wholesale (IDEA), Edible Oil and Margarine (Dijamant), CROATIA: Agriculture (Belje) and Meat Processing (PIK Vrbovec)



Further food retail business expansion in primary markets



**Consolidation** and balance sheet strenghtening

Entering EU market HUNGARY: Ice cream&frozen food (Baldauf), Water and Beverages (Fonyodi); Retail expansion (Konzum BiH)



Capital structure strengthening EBRD 8.33% equity stake



Focus on efficiency, core businesses and capital optimization



# Operating Structure

#### Agrokor - Ownership in Subsidiary Companies

### BUSINESS GROUP FOOD

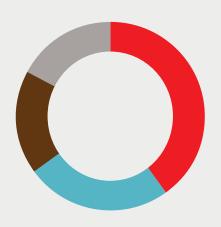
#### Agrokor - Zagreb d.o.o. Agrolaguna d.d. 85.22% Belje d.d. 67.92% Dijamant a.d. Dijamant - Agrar a.d. Frikom d.o.o. Fonyodi kft. 80.44% Irida d.o.o. Jamnica d.d. 80.44% Kikindski mlin a.d. 66.07% Ledo d.d. 55.30% Ledo d.o.o. Čitluk Ledo kft. Ledo d.o.o. Podgorica Mladina d.d. 48.98% Nova Sloga d.o.o. PIK Vinkovci d.d. 70.87% PIK Vrbovec d.d. 99.99% Sarajevski kiseljak d.d. 80.98% Sojara d.o.o. 51.84% Solana Pag d.d. 96.68% Vupik d.d. Zvijezda d.d. 51.84%

#### BUSINESS GROUP RETAIL

Angropromet a.d.	96.86%
Euroviba d.o.o.	91.50%
Idea d.o.o.	96.86%
Jamnica d.o.o. Beograd	80.44%
Jamnica d.o.o. Maribor	80.44%
Konzum d.d.	96.86%
Konzum d.o.o. Sarajevo	96.86%
Kor Neretva d.o.o.	96.86%
Krka d.o.o.	79.82%
Ledo d.o.o. Kosovo	55.30%
Ledo d.o.o. Ljubljana	55.30%
Libertus usluge d.o.o.	100.00%
Multiplus card d.o.o.	72.65%
PIK BH d.o.o. Laktaši	99.99%
Roto dinamic d.o.o.	100.00%
Roto ulaganja d.o.o.	100.00%
Super Kartica d.o.o.	96.86%
Tisak d.d.	67.35%
TPDC Sarajevo d.d.	51.00%
Zvijezda d.o.o. Ljubljana	51.84%
Zvijezda d.o.o. Sarajevo	51.84%
Žitnjak d.d.	86.62%

#### OTHER BUSINESS

Acro d.o.o.	100.00%
Agrokor AG	100.00%
Agrokor - Energija d.o.o.	100.00%
Agrokor kft.	100.00%
Agrokor - trgovina d.d.	100.00%
eLog d.o.o.	96.86%
L.G. Moslavina d.o.o.	100.00%
M-profil SPV d.o.o.	100.00%
mStart d.o.o.	100.00%



40% Retail
25% Food and drink
18% Agriculture
17% Other Business

Our most important brands and products presented according to the relevant groups of companies:

Jamnica

Our brands























































Bottled Waters, Juices and Soft Drinks



































































































# Awards and Recognitions

In 2012 and 2013, Agrokor companies received numerous awards and recognitions for their products. Listed below are the most important ones.



Qudal 2012, 2013; Superior Taste Award 2012

#### Jana

Qudal 2012, 2013; Best Buy Award 2013

#### Ice Tea

Oudal 2013

#### Sarajevski kiseljak

Superbrands Award 2012 and 2013, iTQi Award 2012 and 2013, Best Buy Award 2013

#### Sky Cola

iTQi Award 2012 and 2013

#### **Sky Orange**

iTQi Award 2013

#### **Sky Lemon**

iTQi Award 2013

2013 - Gold Medal for Quality at the Novi Sad Fair; 2013 -Certificate of Medicinality awarded by the Ministry of Health of the Russian Federation

#### Ledo

Qudal 2012 for the highest level of quality; IICC 2012 for Vruća ljubav (Hot Love), the world's most innovative ice cream product; IICC 2013 for the Blueberry and White Chocolate Cake, the world's best ice cream product; Ledonardo Concept, the best commercial concept

#### Frikom

2012 Novi Sad Agricultural Fair, gold medals for quality received for: Breaded Salmon Sticks, Pastry with Pizza Filling, Zu-Zu Pastry with Cheese; large gold medal for quality received for: Buckwheat Cheese Spread; Serbian Corporate Superbrands Award 2012-2013; Moj izbor (My Choice) 2012-2013, Serbian customer choice award (in the Favorite Fruit and Vegetable category)



Povenjak 2013, award and recognition for off-the-shelf Zvijezda Extra Virgin Olive Oil, Best Buy Award, General Survey - Croatia 2014-2015 for the best quality and price ratio in the Margarine and Mayonnaise category

#### Ol Istria

Vodnjan 2012, gold medal for Ol Istria Ascolana, gold medal for Ol Istria Istarska bjelica; VINISTRA, gold medal for Ol Istria Ascolana; TERRA OLIVO 2012 - International Extra Virgin Olive Oil Competition, gold medal for Ol Istria Selection; 2013 Los Angeles Extra Virgin Olive Oil Competition, gold medal for Ol Istria Blends; New York International Olive Oil Competition, gold medal for Ol Istria Blends; Olivinus 2013, Argentina, gold medal for Ol Istria Blends

#### Dijamant

Moj izbor (My Choice) 2012, Serbian customer choice award received for Dobro jutro margarine; Novi Sad Agricultural Fair 2012: large gold medal for Dobro jutro Junior, gold medals for Dobro jutro Mlečni, Dobro jutro Dijet, Classic and Dijavit margarines, and Mediteran mixed edible vegetable oil; Champion of Quality title for Dijamant edible refined oil; large champion trophy for Dijamant Company; Best of Vojvodina award for Dijamant oil in 2012 and 2013; Moj izbor (My Choice) 2013, Serbian customer choice award for Dijamant oil and Dijamant Company as the favorite domestic producer; Novi Sad Agricultural Fair 2013: large champion trophy for Dijamant Company; the title of Champion of Quality for Dijamant edible refined sunflower oil; gold medals for Classic table margarine, Junior mayonnaise enriched with vitamins, Mediteran mayonnaise with herbs, Omegol mixed edible refined vegetable oil, Omegol spread, and Dobro jutro junior medium-fat margarine; Superbrands Award 2013

#### **PIKO Wurst**

QUDAL 2013 for the highest level of quality; 2013 Novi Sad Food Fair, gold medal

#### **PIK Fresh**

#### **Packaged Meat**

QUDAL 2012 for the highest level of quality; QUDAL 2013 for the highest level of quality

#### PIK Mortadella

QUDAL 2012 for the highest level of quality; QUDAL 2013 for the highest level of quality, 2013 Novi Sad Food Fair, gold medal

#### Panona

2013 Novi Sad Food Fair, gold medal

#### **PIK Ham**

QUDAL 2012 for the highest level of quality

#### **PIK Boiled Ham**

2013 Novi Sad Food Fair, gold medal

#### **PIK Wrapped Ham**

2013 Novi Sad Food Fair, gold medal

#### **PIK Smoked Pork Neck**

2013 Novi Sad Food Fair, gold medal

#### **PIK Prosciutto**

QUDAL 2012 for the highest level of quality

#### PIK Kranj Sausage

QUDAL 2013 for the highest level of quality

#### Baranja Kulen

2012 Kulenijada (competition for the best red-pepper flavored salami) in Jagodnjak, gold medal; 2013 Novi Sad International Agricultural Fair, gold medal







#### abc cheese

51st International AGRA Fair in Slovenia (2013), three gold medals; 2013 Novi Sad International Agricultural Fair, six large gold medals and the champion title for abc cheese with vegetables; QUDAL 2013 for the highest level of quality; Best Buy Award 2012; 10th Grubišno Polje Business Fair (2012), gold medal; Superbrands Choice BiH 2011-2012, recognition; 50th International AGRA Fair in Slovenia (2012), two gold medals, 2012 Novi Sad International Agricultural Fair, two gold medals

Vina Belje

Emozioni dal Mondo, Merlot e Cabernet Insieme 2013, gold medal for 2011 Cabernet Sauvignon Merlot and 2009 Cabernet Sauvignon; Merlot e Cabernet Insieme 2012, gold medal for 2009 Cabernet Sauvignon Merlot; Selection Mondiales des Vins Canada 2013, gold medal for 2011 Vina Belje Graševina; Selection Mondiales des Vins Canada 2012, gold medal for 2009 Vina Belje Black Pinot; Decanter World Wine Awards London 2013, bronze medal for 2011 Vina Belje Goldberg Graševina; Decanter World Wine Awards London 2012, bronze medal for 2009 Vina Belje Graševina; The Balkans International Wine Competition Sofia, gold medal for 2011 Vina Belje Chardonnay and Vina Belje Goldberg Graševina; 2012 Mundus Vini, Germany, gold medal for 2011 Vina Belje Graševina and Vina Belje Goldberg Graševina; IWC London 2012, bronze medal for 2009 Vina Belje Merlot and Vina Belje Frankovka; Vinalies Internationales Paris 2012, silver medal for 2008 Goldberg Chardonnay Ice Harvest; Beo Wine Challenge Cup 2012, gold medal for 2007 Goldberg Cabernet Sauvignon

Vina Laguna

Emozioni dal Mondo 2013: gold medal for 2010 Festigia Cabernet Sauvignon; IWC London 2013, silver medal for 2012 Festigia Malvazija, bronze medal for 2010 Festigia

Cabernet Sauvignon, silver medal for 2012 Vina Laguna Malvazija, recommendation for 2011 Festigia Riserva Malvazija; Decanter London 2013, bronze medal for 2012 Festigia Malvazija, bronze medal for 2010 Festigia Cabernet Sauvignon, recommendation for 2011 Festigia Merlot, silver medal for 2012 Vina Laguna Muškat ruža, bronze medal for 2010 Festigia Riserva Cabernet Sauvignon, bronze medal for 2011 Festigia Riserva Malvazija; Monde Selection Bruxelles 2013, gold medal for 2010 Festigia Cabernet Sauvignon, gold medal for 2011 Festigia Castello blend; Vinistra Poreč 2013, gold medal for 2010 Festigia Cabernet Sauvignon, gold medal for 2011 Festigia Merlot, silver medal for 2012 Vina Laguna Muškat žuti, bronze diploma for 2013 Vina Laguna Muškat ruža, silver medal for 2012 Festigia Malvazija, gold medal for 2009 Festigia Riserva Cabernet Sauvignon, silver medal for 2011 Festigia Chardonnay, silver diploma for 2012 Vina Laguna Chardonnay, Brozne Diploma for 2011 Vina Laguna Borgonja, silver diploma for 2012 Vina Laguna Cabernet Sauvignon Rose, silver diploma for 2011 Vina Laguna Teran; Sauvignon Forum Czech Republic 2012, large gold medal for 2009 Festigia Riserva Cabernet Sauvignon, gold medal for 2011 Festigia Chardonnay; Vinagora Hungary 2012, silver medal for 2009 Festigia Castello, silver medal for 2009 Festigia Cabernet Sauvignon; San Francisco IWC 2012, silver medal for 2011 Festigia Malvazija and bronze medal for 2011 Festigia Malvazija Riserva; Selections Mondiales des vins Canada 2012, silver medal for 2009 Festigia Cabernet Sauvignon; Citadelle du vin France 2012, gold medal for 2011 Festigia Malvazija, gold medal for 2009 Festigia Cabernet Sauvignon; Femmes de vins du Monde, Monaco 2012, silver medals for 2009 Festigia Cabernet Sauvignon, 2011 Vina Laguna Cabernet Sauvignon Rose, 2011 Vina Laguna

White Pinot, 2011 Festigia

Malvazija; Vinistra Poreč 2012, gold medals for 2009 Festigia Castello, 2011 Festigia Chardonnay, 2009 Festigia Cabernet Sauvignon and 2011 Festigia Malvazija, silver medals for 2011 Vina Laguna Cabernet Sauvignon Rose, 2011 Vina Laguna Muškat žuti, 2011 Vina Laguna Muškat ruža, 2099 Festigia Merlot, 2009 Festigia Cabernet Sauvignon Riserva, 2011 Vina Laguna Malvazija, bronze medals for 2011 Vina Laguna Grey Pinot, White Pinot, Chardonnay and Borgonja; IWC London 2012, bronze medal for 2011 Vina Laguna Malvazija and recognition for 2009 Festigia Cabernet Sauvignon; Decanter London 2012, bronze medal for 2011 Festigia Malvazija and recognition for 2009 Festigia Cabernet Sauvignon; Finger Lakes Wine Competition USA 2012, gold medal for 2011 Vina Laguna Malvazija, silver medal for 2010 Festigia Malvazija, bronze medals for 2009 Festigia Cabernet Sauvignon and Festigia Castello; Bacchus Madrid 2012, silver medals for 2009 Festigia Castello and Festigia Cabernet Sauvignon.

#### **Podrum Mladina**

Monde Selection, Brussels 2012, 2010 Rajnski rizling Gaj, gold medal; 2012 Sv. Ivan Zelina Continental Croatia Wine Exhibition, 2010 Rajnski rizling Gaj, gold medal; 2013 Sv. Ivan Zelina Continental Croatia Wine Exhibition, 2012 Sauvignon Gaj, gold medal.

#### Idea

Superbrands Award for 2012-2013; Best Buy Award in the International Retail Chains category

#### Konzum

Best Buy Award for the K Plus store brand offering the best price and quality ratio; Best Buy Award for a retail chain offering most favorable prices





# part 2

# Report Parameters

#### **Reporting Period and Cycle**

This is the third Sustainability Report prepared by Agrokor. It presents our activities carried out in 2012 and 2013 in accordance with the reporting schedule that we chose at the time of writing our first report of this type. Since, in our case, a calendar year also represents our fiscal year, the next report will cover the 2014-2015 period.

#### **Contact Person**

In case you have any questions regarding this Report, please contact:

#### Marta Bogdanić

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marta bogdanic@agrokor.h

# Report Scope and Boundary

We defined the contents of the Report in consultation with the most relevant stakeholder groups of The Agrokor Group, according to our sustainable development strategy and key aspects of the same. As the previous two reports, this Report was also prepared according to the Global Reporting Initiative (GRI)

Sustainability Reporting Guidelines, Version 3.0. However, the Report also includes additional sector-specific indicators prescribed by GRI Guidelines, Version 3.1. We determined that, for the purpose of publishing this Report in the shortest period possible, it would be best to use the information and data already collected and analyzed, according to specific requirements for each indicator, within our complex business system during the past two years. Our next Report will be prepared according to GRI Sustainability Reporting Guidelines, Version 4.0.

Report Application Level	С	C+	В	B+	A	A+
GRI 3 Profile Overview	A report for 1.1 2.1-2.10 3.1-3.8,3.10-3.12 4.1-4.4,4.14-4.15	ort ensured.	A report for all the criteria specified for Level C plus 1.2 3.9, 3.13 4.5-4.13,4.16-4.17	ort ensured.	The same criteria as for Level B	ort ensured.
GRI 3 Governance Approach Overview	Not required	of the repo	An overview of the governance approach for each of the specified categories	of the repo	An overview of the governance approach for each of the specified categories	of the repo
GRI 3 Impact Indicators and Additional Sector-specific Impact Indicators	A report covering at least 10 impact indicators, including at least one of the following: social, economic and environmental	External verification	A report covering at least 20 impact indicators, including at least one from each of the following groups: economy, environment, human rights, labor, community, product responsibility	External verification	A report for all key GRI 3 indicators and additional sector-specific indicators with an overview of the principle of relevance by: a) reporting by particular indicator or b) explaining the reason exclusion of the same	External verification

Our Sustainability Report provides information for the entire Group, i.e. consolidated data for the economic, labor, employee, human rights, community and product responsibility sets of indicators. We continue to present our environmental indicators separately for each company, thus allowing for the possibility of comparing the same with the data reported for previous periods, and retaining their material value and relevance. In this manner, monitoring of the environmental impacts of each presented company belonging to the Group was ensured during this reporting period as well.

This Report is based on the information and data collected from the following companies:

- agriculture: Belje, Kor Neretva, PIK Vinkovci, Vupik, Solana Pag, Kikindski mlin
- · ice cream and frozen food products: Ledo, Irida, Frikom, Ledo Čitluk, Ledo Kft
- oil, margarine and mayonnaise products: Zvijezda, Dijamant, Sojara Zadar
- bottled waters and beverages: Jamnica, Sarajevski kiseljak, Fonyodi, Nova sloga, Mladina, Agrolaguna
- meat and meat products: PIK Vrbovec
- retail sales: Konzum, Idea, Konzum BiH and Tisak
- · other activities: Agrokor trgovina, Agrokor Energija

As in our previous Reports, we classified the companies engaged in several areas of activity in one of the above-mentioned groups on the basis of the scope of their most important activity. Thus, for example, Belje is classified under agriculture, since agricultural production is the company's main financial performance driver, although it also engages in meat and milk processing, flour, wine and cattle feed production, and other activities.

This Sustainability Report is based on Application Level B of the GRI Sustainability Reporting Framework. The next Report will be prepared in compliance with GRI Guidelines, Version 4.

According to 2002		С	C+	В	B+	Α	A+
Required	Selfdeclaration			YES			
Optional	Verified by a third party		External verification of the report ensured	YES	External verification of the report ensured		External verification of the report ensured
- 1	Verified by GRI						

# Agrokor 2013 Management Board



Ivica Todorić President of the Management Board





Ljerka Puljić Senior Executive Vice President Strategic Business Groups and Marketing, Agriculture Business Group



Damir Kuštrak Executive Vice President Export Markets







Mislav Galić Executive Vice President Food Business Group



Ante Todorić Executive Vice President Retailing Business Group









Ivan Crnjac Executive Vice President Strategy and Capital Markets

Senior Executive Vice President Finance and Control

Gordan Radin Executive Vice President Human Resources, Legal and General Affairs

Hrvoje Balent Executive Vice President Central Purchasing and Services

# Agrokor Governance Structure

#### **The Supervisory Board**

The Supervisory Board of Agrokor d.d. comprises five members, three of whom were elected at the General Meeting by a simple majority of present votes, one was appointed by the European Bank for Reconstruction and Development (EBRD), and one by the Company's employees in accordance with the provisions of the Labor Act. The Members of the Supervisory Board are appointed for a term of four years. The Members of the Supervisory Board elect the Chairman and Vice Chairman of the Supervisory Board among themselves. In 2012 and 2013, Ivan Todorić was Chairman of the Supervisory Board and Branko Mikša served as Vice Chairman

The Articles of Association of Agrokor affiliates also prescribe that Members of the Supervisory Board be elected and removed by the General Meeting and that one member be appointed by the employees in accordance with the provisions of the Labor Act.

The Supervisory Board is responsible for supervising the management of company's affairs. The Supervisory Board is authorized to review and examine corporate accounts and documents, treasury, securities, etc. For that purpose, the Board may appoint its members or experts. The Supervisory Board issues an order to the auditor to review the annual financial statements of each company and the Group. The Supervisory Board submits a written report on the supervision of the company's affairs and review of financial statements to the General Meeting. The Supervisory Board is authorized to convene a General Meeting and it proposes, independently or in consultation with the Management Board, decisions to be passed at the General Meeting.

It is prescribed by Agrokor Articles of Association and the Articles of Association of the companies belonging to The Agrokor Group that the Supervisory Board, as one of the Company's governing bodies, is responsible for electing and removing the Members of the Management Board.

In Agrokor companies in which minority shareholders hold more than 10 percent of total shares, the shareholders refer their recommendations and propose guidelines to the Supervisory Board through their representative appointed as Member of the Supervisory Board after the General Meeting approves nomination proposed by the relevant shareholders. In Agrokor companies in which the shareholders hold less than 10 percent of total shares, the shareholders exercise their rights at the General Meeting in accordance with the Companies Act and constituting documents of such companies.

Most companies within the Group employ more than twenty people who are, pursuant to the Labor Act, entitled to participate in decision-making which concerns their economic, worker's and social rights and interests. For this purpose, employees are free to elect a Workers' Council, which appoints an employee representative to the Supervisory Board. The Member of the Supervisory Board who represents the employees is responsible for protecting the interests of employees at Supervisory Board meetings and he/she promotes proposals and guidelines presented at employee meetings. Agrokor has not established a Worker's Council, so that the employee representative is appointed to and removed from the Supervisory Board by employees through free and direct voting by secret ballot in accordance with the Labor Act.

Considering the size of Agrokor Supervisory Board, no other committees are formed. All Members of the Supervisory Board are responsible for supervising strategy implementation, organizational monitoring and controlling the level of sustainability of business operations, as well as all other areas relevant to the operation of the Company.

#### Agrokor Management Board

According to the Articles of Association, Agrokor Management Board may consist of up to eleven members. The Members of the Management Board are appointed (for a term of five years) and removed by the Supervisory Board and they may be reappointed without limitation. Within the scope of its rights and obligations regarding the management of the Company's affairs, the Management Board is authorized and required to undertake all measures and activities as well as make all decisions necessary to ensure successful operation of the Company. The Management Board regularly reports to the Supervisory Board, particularly with regards to issues such as business policy and strategy, profitability and current operations of The Agrokor Group, as well as any extraordinary issues relevant to its business operations.

#### Stakeholders

List of stakeholder groups engaged by the organization

In their mission and vision statements, Agrokor companies define the stakeholder groups that they deal with on a daily basis and consider relevant for their business operations and success. In each business location and environment, there are individuals and groups with specific interests or demands towards the Company, and considering how closely related such companies are with the environments they operate in, such requests are usually acknowledged. To ensure continued mutual interest and understanding, we regularly communicate with the stakeholder groups identified below.

The first business group that signed collective agreements already in 1996.

#### **Customers**

Customers represent an extremely important stakeholder group of all companies within the Group. Their comments collected in various surveys are used as the basis for improvement of our existing products and development of new ones. Our products and services are continuously adjusted to customer needs and changes in their habits and lifestyle trends. Special attention is dedicated to product quality. All the Group companies provide toll free customer lines as well as the possibility for the customers to submit their suggestions and comments via e-mail or through our web interface. In addition, individual customer habits and needs are followed on the basis of customer loyalty cards. On the basis of the information collected in this way, we organize specific promotions for the customers, as well as provide discounts and benefits for the same in our retail chains.

#### **Employees**

Agrokor companies never stop emphasizing and demonstrating that the employees are the most valuable asset of the Group. By providing them with continuing advancement and additional training opportunities and assisting them in career development planning, we strive to motivate our employees as well as increase their satisfaction and performance. At the same time, we expect from them to comply with the highest standards of excellence. Our employees,

working at different levels, actively participate in the process of proposing and creating improved solutions. Their working environment ensures them the opportunity for continuing professional and personal development.

#### **Unions**

We are proud to be able to say that the Croatian companies belonging to the Group are the first private companies to incorporate collective bargaining in their employee and union relations business models. We follow the same practice in other countries of the region, in accordance with local laws and regulations. Through workers' councils, the unions participate in the process of passing decisions by the Management Boards and the supervision of business operations through their membership in the Supervisory Boards of the relevant companies. The Agrokor Group supports and finances charity, educational and sporting activities based on union initiatives.

#### **Suppliers and partners**

We work closely with our suppliers and partners to create values adjusted to the needs of our customers and other stakeholders. Mutual commitment to sustainable development and application of the highest quality standards are the basic requirements which must be met by Agrokor companies. The same requirements apply to the business partners we cooperate with. We create and

By building a noise barrier next to the onion warehouse and processing facility in Lipovac, PIK Vinkovci successfully responded to the needs of the people living in the surrounding area.

improve business relations through intensive cooperation, thus contributing to the achievement of not only our business results, but also of our long-term sustainable development goals.

### Shareholders and financial institutions

The long-term management strategy applied by Agrokor companies is focused on increasing the value of share capital. We have been putting efforts into earning the trust of our shareholders, investors and financial institutions for years confirming our focus on creating new value by our results. Through regular reporting, provision of access to information about our business operations and interaction with the above-mentioned stakeholders, we fulfill our mutual needs and demands, thus creating trust that our business relationships rest on.

# Local and central government

Each company which belongs to the Group is closely associated with the environment in which it operates because it participates in developing and raising the quality of life by employing local population and paying local levies and taxes. On the other hand, as one of the largest business entities in the region, The Agrokor Group has an additional responsibility for creating a transparent, fair and stimulating business environment. Our employees and companies continuously cooperate with all institutions in the countries in which

We accept
our responsibility
for creating a
transparent, fair and
stimulating business
environment.

we operate and provide the necessary professional assistance and business expertise in accordance with the requirements and needs of particular state institutions. Through interaction with the local and central authorities, we help create business conditions benefiting all interest groups.

#### Community

The Agrokor Group is closely associated with the communities in which we create new economic value, which is why our corporate culture includes participation in local initiatives. By carrying out various activities our employees help the development and increase the quality of life in their relevant environments. They also propose financing of activities they consider very important. We are referring to activities falling within the scope of charity, preservation of cultural heritage, conservation of environmental resources, art and culture, and projects associated with children and youth. By actively participating in activities carried out by their local communities, our employees and companies contribute to further development at all levels and in all areas where deemed necessary, thus creating a positive and sustainable business and living environment.

One of the examples of the manner in which we interact with our stakeholders is our cooperation with the people living near the onion and potato warehouse and the onion processing facility in Lipovac. More precisely, after our Lipovac-based onion and potato warehouse had been built, the people living in the immediate vicinity of the warehouse complained of higher noise levels during the periods when fans are

in operation. The fans are installed on the exterior wall of the warehouse and are used in the technological process for air dehumidification and creation of proper climatic conditions for storing onions and potatoes. After the relevant measuring, the increase in noise level was confirmed. As a result, PIK Vinkovci prepared a noise reduction plan in cooperation with the competent institutions. The noise barrier construction project was completed at the end of 2013. The actual noise level reached when the facility is in full operation will be measured during the next loading of onions into the warehouse (planned in summer of 2014), as that is when the fans are most frequently used. Regardless of the future measuring plans, our neighbors in Lipovac expressed their satisfaction after the noise barrier was built, saying it had helped raise the quality of life in the village.

# part 3 Impact Indicators

The Agrokor Group is the largest vertically integrated producer, distributor, retail and wholesale chain in Croatia, Bosnia and Herzegovina and Serbia and one of the leading companies in Southeast Europe. The Group's operations are organized in two basic business segments: i) Retail and Wholesale Business Group and ii) Food and Beverage Production and Distribution Group, including four main segments: Ice Cream and Frozen Food Products; Bottled Water and Soft Drinks; Oil, Margarine and Mayonnaise Products; and Agriculture and Meat and Meat Products.

- 3.1 Economic Impact Indicators
- 3.2 Social Impact Indicators
- 3.3 Environmental Impact Indicators

# part 3.1

# Economic Impact Indicators

The Agrokor Group is the largest vertically integrated producer, distributor, retail and wholesale chain in Croatia, Bosnia and Herzegovina and Serbia and one of the leading companies in Southeast Europe. The Group's operations are organized in two basic business segments: i) Retail and Wholesale Business Group and ii) Food and Beverage Production and Distribution Group, including four main segments: Ice Cream and Frozen Food Products; Bottled Water and Soft Drinks; Oil, Margarine and Mayonnaise Products; and Agriculture and Meat and Meat Products.

# **Economic Impact**

Despite the fact that Agrokor's primary markets are still facing adverse macroeconomic trends, including decreased consumption and increased unemployment, Agrokor continued to record growth in this reporting period as well, both regarding its revenue and its profitability levels. On the consolidated basis, the total sales revenues were HRK 30,144.8 million, which is an increase of 1.3 percent, while EBITDA increased by as much as 12 percent, reaching HRK

3,053 million and resulting in an increase in EBITDA margin from 9.2 percent to 10.1 percent. In 2012 and 2013, Agrokor companies continued to pursue their strategy focused on increasing and/or retaining their shares and undertaking proactive measures, such as effective marketing and promotional campaigns, price investments, ongoing innovation, product range expansion, and offering private labels. In addition, the management continued to be highly focused on

optimizing costs and business processes, increasing efficiency and profitability, while continuing the systematization and reorganization process, and maximizing the synergies within the Group. Agrokor performance in 2013 shows that our companies managed to retain or even increase their market shares, improve their competitiveness and strengthen their market positions, thus creating added value for all stakeholders and a strong platform for future growth.

	<b>2011</b> (HRK 000)	<b>2012</b> (HRK 000)	<b>2013</b> (HRK 000)	<b>2013/2012</b> %
Direct economic value generated	29,362,179	30,290,200	30,641,428	
a) Revenues	29,362,179	30,290,200	30,641,428	1.2%
Economic value distributed	28,359,231	29,362,866	29,675,925	1.1%
b) Operating costs	23,996,150	24,819,647	24,941,379	0.5%
c) Employee salaries and benefits	2,977,329	2,905,140	2,696,341	-7.2%
d) Payments to capital providers	1,148,521	1,422,073	1,785,775	25.6%
e) Payments to the government	222,914	197,233	234,173	18.7%
f) Investments in the community	14,317	18,773	18,257	-2.7%
Retained economic value (calculated as economic value generated minus economic value distributed)	1,002,948	927,334	965,503	4.1%

Source: Capital Strategy and Markets - Agrokor

The revenues include sales revenue. other revenue interest revenue net revenue from selling tangible assets and subsidiaries, Group's share in the profit or loss of its affiliated companies, dividend revenue, and fair value of acquired assets in excess of the acquisition cost less goodwill written off. In 2013, direct economic value generated increased by HRK 321 million or 1.2 percent compared to 2012. Such increase achieved despite the unfavorable macroeconomic indicators recorded in our environment is a result of our strategic focus on increasing revenues and improving profitability, as well as the timely undertaken measures to adjust to the unfavorable market and macroeconomic conditions. It is also a reflection of a very good tourist season in Croatia.

The Retail Business Group accounts for 75.8 percent of total consolidated revenues recorded in 2013. Compared to the figures recorded in the same period the year before, the Business Group achieved a growth of 1 percent in 2013 and its sales revenues increased from HRK 22,625.1 million to HRK 22,854.9 million. Such increase achieved despite the unfavorable macroeconomic circumstances in Croatia, Bosnia and Herzegovina and Serbia is a result of the combined effects of several factors, including strong marketing and promotional activities, constant investments in prices and price perception, redesign of our existing retail network with an emphasis on small stores, adjustment of our private label range, further utilization of the advantages provided by the Customer-Centric Retailing concept that allows us to adjust our pricing and product range policies not only to the store size, but also to the demographic characteristics of each store's micro-locati-

on, focus on customer care by offering best-buy products, and personalized promotions for loyal customers. Such increase in revenue was accompanied by an increase in profitability. This Business Group's EBITDA margin increased from 5.2 percent to 5.4 percent.

The Food Production and Distribution Business Group accounts for 20.5 percent of the consolidated revenues recorded in 2013. The consolidated sales revenues increased by 1.2 percent compared to the same period the year before, i.e. from HRK 6,118.2 million to HRK 6,194.2. The Business Group's profitability also grew, resulting in an increase in EBITDA margin from 13.4 to 15.9 percent. The increase in profitability is a result of our efforts put into improving the efficiency of our business processes and cost structure, as well as into the restructuring of this Business Group's portfolio. The Meat and Meat Products and Bottled Water and Soft Drinks segments were the most significant contributors to the performance of the Food and Beverage Production and

Our pricing and product range policies are adjusted to the demographic conditions of the micro-locations in which stores are

based.

Distribution Business Group.

Operating costs include material costs, service costs, other costs (exclusive of salaries, taxes and contributions on salaries and depreciation costs), investments value

adjustment, and net foreign exchange losses. Material costs increased by 0.5 percent compared to 2012, but remained at the same level in terms of their share of total sales revenues – 80.5 percent. The increase in operating costs is a result of a higher level of business activity and is consistent with the sales revenue increase. The costs of salaries and employee benefits decreased by 7.2 percent as a result of continuing business process optimization, but also as a result of changes in the employee structure.

Payments to the government include income tax, which was, in 2013, higher compared to the same period the year before due to a higher taxable income level. Payments to capital providers include interest accrued and dividends distributed. As a result of these factors, Agrokor managed to increase its retained economic value by as many as 4.1 percent compared to the value achieved the year before despite the unfavorable economic and financial conditions in the market in 2013.

#### The Risks and Opportunities Concerning Climatic Changes

We have lately been witnessing significant climatic changes in our region. Extreme heat, abundant rain, floods and violent storms, which were until recently not so common in this part of the world, have a substantial impact on the operation of the companies which belong to the Group because of the effect they have on our crops grown outdoors. First of all, the companies engaged in agricultural production are directly affected by such climatic

changes and indi-

rectly, on the basis of the prices of input that we purchase from our suppliers, the effects of disruptions in the production of raw materials that we purchase in the market also reflect on our business operations.

is the initiator and one of the founders of the Croatian Irrigation
Association (HUZN) which ensures that irrigation needs of farmers from all farming areas in the Republic of Croatia are articulated.

As far as agricultural production is concerned, we intensified our activities to prepare for the major irrigation investments we expect to make in the next reporting period. As we depend

on the existence of public irrigation infrastructure like any other farmer, we initiated and were one of the founders of the Croatian Irrigation Association (HUZN). The Association made it possible to articulate the needs of farmers from all farming areas in the Republic of Croatia, based on which the public sector will be able to channel its own investments into a public irrigation system.

The effects of climatic changes may be reduced by minimizing the use of fossil fuels and ensuring proper disposal of all types of farming and food production by-products and waste. In August 2012, Agrokor energija opened its first

biogas plant near Vrbovec, the Gradec biogas plant. The plant's installed power capacity is 1 MW and it generates over 8000 MWh of electricity every year, which is then distributed to the national grid, and approximately 9000 MWh of thermal energy used to heat the fermenters, the enclosures on the Gradec I and Gradec II pig farms located in the immediate vicinity of the biogas plant, and to dry the digester used as organic fertilizer and a high-quality supplement to mineral fertilizers. The material which is predominantly used to run this biogas plant is pig manure.

Besides pig manure, various by-products and waste from different food processing facilities are also used in the plant. After the Gradec plant, we also put into operation our 2 MW Mitrovac biogas plant and are in the process of building the Popovac, Ovčara and PIK Vinkovci biogas plants, each with an installed power capacity of 2 MW. After their completion and increasing the capacity of the Gradec plant to 2 MW, the total installed power capacity of all our biogas plants will be 9.8 MW. The new biogas plants are expected to be put into operation in 2014 and 2015.

The raw
material which
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used in our biogas plants
is pig manure, although
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and waste from different
food processing
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used.



#### **Pension Plan**

All our employees are registered and included in the state pension fund in accordance with the relevant regulations. In the Republic of Croatia, the pension contribution rate is still 20 percent and is divided, depending on employee age, into the compulsory 1st pension insurance pillar of 15 percent and the optional 2nd pension insurance pillar equaling five percent of the contribution calculation base. Pension contributions are paid by the employer in the name and at the expense of the employee.

According to the provisions of the relevant collective bargaining agreements and general documents, each employee is entitled to a bonus in addition to their base salary for each effective year of insurance.

At retirement, each employee becomes entitled to severance pay in accordance with the law, collective bargaining agreements and general documents. An employee is entitled to a jubilee benefit on the basis of his/her uninterrupted ser-

vice with the employer in the duration of 10, 15, 20, 25, 30, 35 and 40 years. The requirements for receiving and the amount of such jubilee benefits are defined under the relevant collective bargaining agreements and the amount payable equals the maximum non-taxable amount determined in the relevant Ordinance issued by the Ministry of Finance.

#### **Financial Aid Received from the Government**

In this period as well, the Croatian Government continued to financially stimulate certain economic activities of all business entities in their respective segments. Most of the subsidies provided by the Republic of Croatia to Agrokor companies were received for activities in the field of agricultural production and cattle farming. It is very important to note that the government is not a direct shareholder in any of Agrokor companies.

	2011	2012	2013
Total financial aid (000 HRK)	173,789	175,353	136,051
Tax benefits/tax credits	429	621	0
Subsidies	146,669	141,982	120,688
- Cattle feeding	67,831	54,405	49,414
- Agricultural production (harvesting, orchards and vineyards)	78,838	87,577	71,274
Aid for investment, research and development	0	254	2,420
Rewards	0	0	0
Exemptions from paying license fees or royalties	0	0	0
Financial aid from export credit agencies	0	0	0
Financial incentives	26,691	32,496	12,943
Other financial benefits	0	0	0

Source: Capital Strategy and Markets - Agrokor



# Funding Policy and Practice and Share of Funds Used to Purchase Products and Services from Local Suppliers in Important Markets

The Agrokor Group and its members are present in the markets of several countries in the region. However, their primary markets, where most of their business is conducted, are Croatia, Serbia and Bosnia and Herzegovina. Each of these markets is considered by Agrokor a local market and all suppliers of raw materials, products or services having their registered office in the local market are considered local suppliers.

Because of its size, Agrokor has a significant impact on the local economy. This impact is also a reflection of Agrokor choice of suppliers. More precisely, Agrokor prefers local suppliers, thus ensuring them direct support and helping them grow and develop, which indirectly spurs the growth of the local economy. There are, however, certain limitations in the process of selecting local suppliers – a number of specific products or services cannot be purchased from local suppliers because such suppliers do not exist in the local

market or they do not meet our quality and price criteria. For example, Agrokor strives to comply with high quality standards with regards to industrial equipment. Therefore, such equipment is purchased from large international suppliers in 80 percent of the cases. However, local companies are engaged for installing and maintenance of such equipment whenever possible.

In addition to the price and quality of their products and services, there are other criteria relevant to the selection of a supplier. Good vertical integration of local suppliers with their sales and aftersales networks, their strategic focus on long-term presence in the market, professionalism and a positive impact on the community are just as important when selecting a supplier. At present, the Group spends over 70 percent of all its funds allocated for the purchase of raw materials, products and services under agreements with local suppliers.

Mutual partnerships between Agrokor and local suppliers guarantee job security and contribute to the stability of the local economy. We thus uphold the sustainability of our own business operations and positively affect the entire local community. For the purpose of formally presenting what we expect from the suppliers we cooperate with, we began to develop a manual containing guidelines for suppliers. The supplier manual will be published in the next reporting period.

By choosing local suppliers, we contribute to the stability of local economy.

# 3.2

# Social Impact Indicators

The Agrokor Group is the largest vertically integrated producer, distributor, retail and wholesale chain in Croatia, Bosnia and Herzegovina and Serbia and one of the leading companies in Southeast Europe. The Group's operations are organized in two basic business segments: i) Retail and Wholesale Business Group and ii) Food and Beverage Production and Distribution Group, including four main segments: Ice Cream and Frozen Food Products; Bottled Water and Soft Drinks; Oil, Margarine and Mayonnaise Products; and Agriculture and Meat and Meat Products. The Group achieves most of its revenues, over 70 percent, in the Croatian market, where it also employs most of its people, thus significantly contributing primarily to the economy of Croatia, but also to other markets served. By continuously investing in business development, employee training and product quality improvement, the Group works on creating an even greater value for all its employees and investors and therefore successfully exists in this highly competitive business environment.

# Social Impact

#### **Human Resources**

As people are the most valuable asset and a competitive advantage of any company, human resources management is one of the most important business functions, essential for Agrokor success. As a socially responsible company, we continued implementing our long-term development strategy even during the global and regional crisis, we intensified our activities aimed at improving our working environment and ensuring employee protection and improvement of their occupational health and safety. We also provided various opportunities for employee development.

In this Report as well, we wish to emphasize once again the key message from the President of The Agrokor Group and the fundamental postulate of Agrokor human resources management strategy: "We consider our employees the most valuable asset of the company. They represent our lasting and comparative advantage in market competition and a driving force for our further accomplishment". Therefore, such clear strategic orientation and the reputation of Agrokor as a socially responsible company, which has been confirmed in practice, additionally motivates and commits us all.

By coordinating our operating standards and policies, improving the organizational system and organizational development, our business processes, employee competence development system, and human resources and talent management system, as well as by intensively promoting innovation and proactivity, we significantly raised our operating efficiency and employee satisfaction levels in 2012 and 2013. In addition, considering the economic environment, we performed numerous activities providing short-term and long-term strategic support to business processes at the level of each company and the Group, all for the purpose of achieving the defined business goals.

In this reporting period as well, the Group's strategic focus on overall excellence once again brought before us new challenges and tasks since the existing and new markets as well as new quality products and services and, of course, the most qualified, highly-motivated and satisfied employees, are the key factors that all activities performed by the companies and the Group are focused on daily. The central human resources department was responsible for planning, developing and improving HR management and development tools, procedures and standards, as well as for enabling the management to apply the same for the purpose of achieving the planned business goals. As HR departments of individual companies belonging to the Group have highly developed systems and programs, coordination of the implementation of best practices and improvement of business performance of individual companies and the Group as a whole was made possible through continuing mutual cooperation.

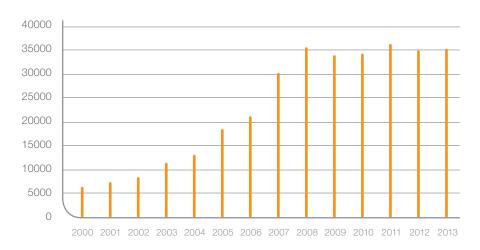
Pursuant to the 2012-2015 Strategic Plan of the Human Resources Department and the goals and priorities set for 2012 and 2013, we introduced important novelties in the implementation of particular HR management processes. The role, importance and scope of knowledge, competences and tools of the Human Resources Department, along with continuing synergies, contributed to the achievement of Group's strategic business objectives. Improvement of operations and business process optimization were some of the most important tasks and each company was required to be adaptable and open to changes in the current circumstances. The HR Department played a key role in designing and implementing our business strategy and its resulting impact on our HR management programs.

More precisely, in our efforts to increase competitiveness and business excellence by systematically directing and guiding our human resources towards achieving the Group's goals and objectives, we must constantly analyze our efficiency as well as adjust, redesign and develop our organization in order to stay ahead of others in the performance of defined activities. Therefore, analyzing our organizational structure, work tasks, communication lines, business process efficiency, capacity utilization and costs was and remains a continuous process and task.

To use a sporting metaphor, we are running the race for the best time in the field of organizational improvement, which race must never end, if we wish to remain competitive, but go on continuously and dynamically.

#### **Aspect: Employment**

#### Agrokor Employees from 2000 until 2013, as of December 31



#### Agrokor Employees from 2000 until 2013, as of December 31

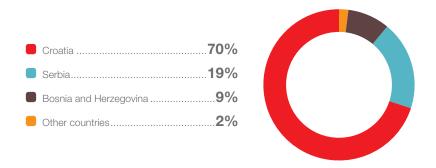
The structure of employees by the type of employment contract, age, level of qualification and gender, and the shares of employees by the type of business operations and countries did not significantly change compared to the previous report.

In 2012 and 2013, approximately 70% of all employees were employed in the Republic of Croatia, 19% in the Republic of Serbia, 9% in Bosnia and Herzegovina, and 2% in other countries of operation.

Country	Permanent Employment Contract	Temporary Employment Contract	Temporary and Occasional Employees*	Total Employees
Croatia	20,454	5,094	649	26,197
Serbia	5,053	1,175	702	6,930
Bosnia and Herzegovina	2,860	650	31	3,541
Other Countries	442	110	28	580
Total	28,809	7,029	1,410	37,248

<sup>\*</sup> Temporary employment agencies, student services, vouchers and specific service agreements

#### Agrokor Employees, Shares by the Country of Operation, 2013



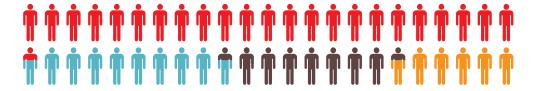
#### Agrokor Employees by Type of Business Operations, 2013



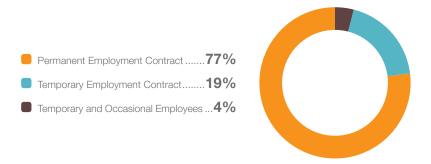
Retail
 Food
 Sales and Services
 Agriculture
 11%

Most of our employees work in retail (54%), followed by food and beverage production and distribution (21%), agriculture (11%) and other areas of Agrokor's business operations (14%), including companies in the Sales and Services Business Group, which recorded a significant growth during the reporting period.

#### Agrokor Employees by Type of Business Operations, 2012



#### Agrokor Employees by Type of Employment Contract, 2013



On the last day of the reporting period, employees with permanent employment contracts accounted for 77%, employees with temporary contracts accounted for 19%, while our temporary and occasional employees accounted for 4% (agencies, cooperatives (Serbia), vouchers (Croatia), student service contracts, specific service agreements) of total employees.

The economic objective of the Human Resources Department is to provide an optimal number of required employees with appropriate qualities at the right time and in the right place, as well as use their potential for the purpose of achieving organizational objectives, thus creating competitive strength and ensuring success.

The required number and structure of employees regardless of the type of employment contract (permanent or temporary contract, temporary or occasional employment) is planned at the level of the Group on an annual and monthly basis in order to ensure optimal use of the existing human resources, as well as the number of people potentially leaving (for retirement purposes). The job includes regular reporting, which allows us to use our "internal labor market" and fulfill our staffing needs in a timely manner.

In the past period, additional efforts were put into analyzing our employment model for the purpose of maximizing the use of our own resources and selecting the most efficient form of workforce engagement according to the types of business operations performed and countries of operation.

During the reporting period, there were no instances of forced, compulsory or child labor in the Group, or any other violations of the International Labor Organization's (ILO) convention.

The Group's employee turnover rates are directly associated with the type of business operations that a particular company is engaged in, which is particularly evident in companies that employ seasonal workforce. The average annual number of seasonal employees is 2554, most of whom are needed during the summer season, seasonal agricultural activities, and different holidays across the region. Consequently, most departures refer to employees with temporary employment contracts (65.52% in 2012 and 74.82% in 2013), while the turnover rate among our permanent employees was 6.84% in 2012 and 8.23% in 2013. The mentioned percentages include the retirement-based departures as well. The employees leaving Agrokor companies are always properly informed about all their rights and options in connection with employment termination and are provided professional support in their respective companies, in accordance with all applicable laws, each company's corporate documents, and collective bargaining agreements. According to the overall turnover trends at the level of the Group, the turnover rate among male employees was 25.11% and 17.10% among female employees. The employee turnover rate in the Republic of Croatia was 5.01%, 8.76% in the Republic of Serbia, and 16.35% in Bosnia and Herzegovina.

In addition, the turnover rates recorded in the Group reflect our continuous commitment to employing young highly educated persons as well as specialists and experts of all profiles and ages and are, especially in the last reporting period, a result of: new investments, reorganization and optimization of particular business segments, implementation of new technologies and products, and overall improvement of business processes.

The Group actively participates in public policy projects and measures aimed at employing young people and helping their transition from the educational system into the labor market by providing them with practical skills and experience. In this reporting period, we strengthened our cooperation with the competent ministry, employment services, local and regional self-government units, business centers and incubators, schools, faculties, secondary and university student associations, and many other institutions associated with the labor market. We also continued providing opportunities for participation in practical training, traineeships, apprenticeships and practical work intended for young people with vocational school degrees and highly educated young people of different profiles.

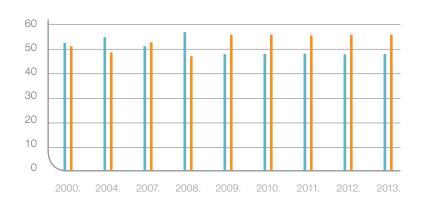
The size of our Group and its constant growth and development allow us to offer new employment opportunities through new investments and business expansion. We plan to pursue this practice in the next period as well.

During the reporting period, our companies employed on average 303 disabled persons, which is 0.84 percent of all our employees. Zvijezda d.d. continues to actively implement its project for employing and mentoring disabled persons in cooperation with the Inkluzija association. Ten seriously mentally challenged persons presently work there as assistants.

## Agrokor Employees by Gender (2012, 2013; 2000-2013 trend)

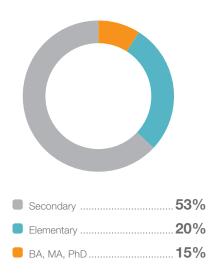


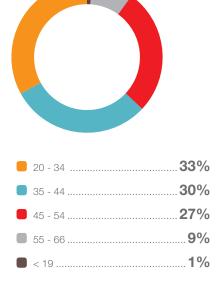
As far as gender is concerned, 54% of all Agrokor employees are women. As far as qualifications are concerned, most employees have secondary and post-secondary non-university education (63%). In terms of the age, the greatest number of employees fall in the groups of employees aged 20-34 (33%) and 35-44 (30%).

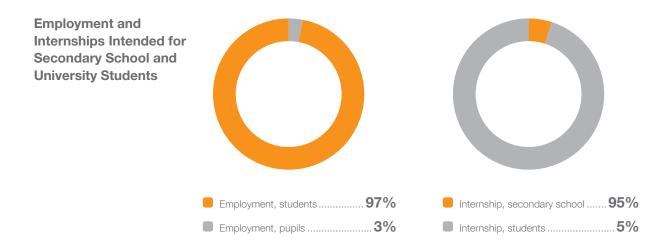


## Agrokor Employees by Level of Qualification, 2013

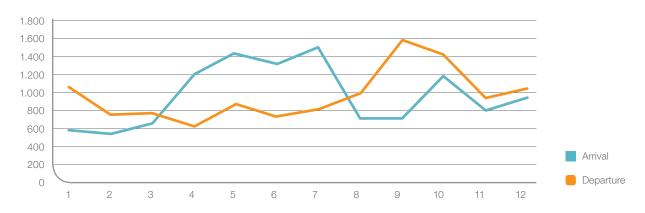
## Agrokor Employees by Age, 2013



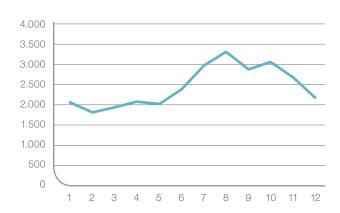




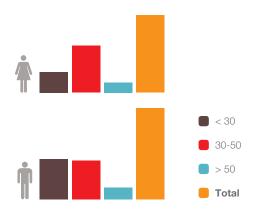
### **Total Annual Employee Turnover within the Agrokor Group**



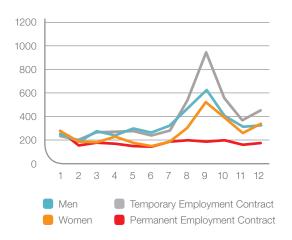
## **Seasonal Employment within the Agrokor Group,** 2013

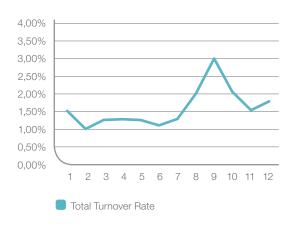


## Structure of Seasonal Employees, 2013

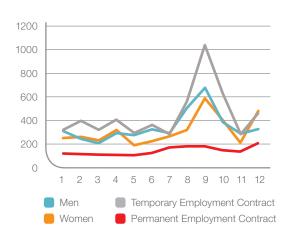


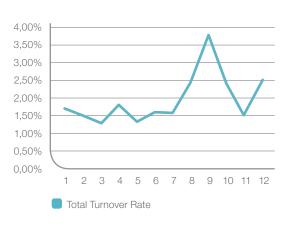
### **Employee Departures and Turnover Rates, 2013**





### **Employee Departures and Turnover Rates, 2012**





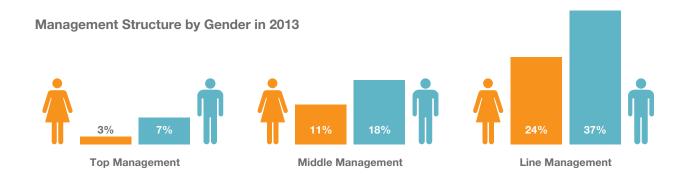
### **Employee Turnover Rate by Gender, Age and Type of Employment Contract**

2013	Gender		Type of Contract	
	Male Female		Temporary	Permanent
Parametar	Turnover Rate	Turnover Rate	Turnover Rate	Turnover Rate
< 30	52.12%	38.54%	82.22%	8.96%
30 - 50	18.23%	16.47%	67.72%	6.40%
> 50	19.27%	18.08%	94.36%	12.89%
***************************************	26.39%	20.10%	85.67%	10.23%

2012	Gender		Type of	Contract
	Male	Female	Temporary	Permanent
Parametar	Turnover Rate	Turnover Rate	Turnover Rate	Turnover Rate
< 30	56.10%	40.71%	89.31%	6.65%
30 - 50	19.07%	16.67%	78.18%	4.58%
> 50	18.72%	18.23%	96.23%	11.44%
	26.68%	20.85%	84.21%	9.48%

### **Aspect: Diversity and Equal Opportunity**

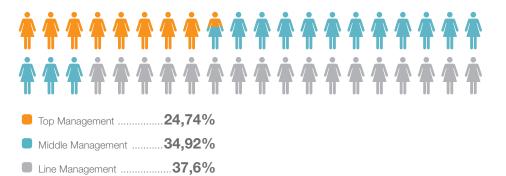
In the governance structure of Agrokor companies, i.e. lines of management, most employees belong to the group aged 30-50 (73.54%), a significant number of employees is aged 50+ (18.95%), while women account for 38% of the management.



Share of Women in the Management Structure of Agrokor Companies, 2013

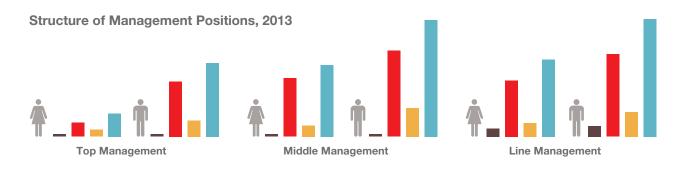


Share of Women in the Management Structure of Agrokor Companies, 2012





**Ljerka Puljić** Senior Executive Vice President, Agrokor



### **Structure of Management Positions, 2012**



### **Employee Evaluation**

In an effort to ensure achieving successful business results based on the clearly defined individual and common targets, through regular monitoring and evaluation of key employee performance indicators and application of an adequate remuneration system, we increase employee motivation, productivity and efficiency.

The salaries paid to employees of the companies belonging to the Group are consistent with the market trends in the region, types of business operations performed, regulations in different countries of operation, as well as collective bargaining agreements. However, as one of the largest and leading employers in the region, the monthly gross salaries paid to our employees during

the reporting period were higher than the respective national average: by 34.72% in the Republic of Croatia, by 55.94% in the Republic of Serbia, and by 34.19% in Bosnia and Herzegovina.

There are no differences between men and women with respect to their entitlements and base salary amounts. However, if we look at the Group as a whole, the average monthly gross salary paid to women in 2012 was on average 2.71% higher than the average monthly gross salary paid to men, but this difference was reduced to 0.56% in 2013. As far as management is concerned, in the past reporting period men received an average monthly gross salary which was 16.15% higher than that received by women.

### Salaries Received by Men and Women by Employee Category in 2013



### Salaries Received by Men and Women by Employee Category in 2012



### **Aspect: Occupational Health and Safety**

Since safe and healthy working conditions are considered a factor ensuring greater care to employees, we have established intensive cooperation and coordination in the area of occupational health and safety among the related professionals and departments operating within Agrokor companies for the purpose of exchanging experiences and practices, implementation of standards, active participation in the preparation of relevant regulations, development of training programs, and cooperation with the relevant institutions.

During this reporting period, we organized regular work and coordinating meetings on the topic of occupational health and safety in order to provide our companies engaged in different types of business operations with opportunities to exchange their field-specific practical experiences (retail, manufacturing, agriculture).

At the global level, health and safety issues are regulated by relevant laws and subordinate regulations. At the micro-level, these issues are regulated on the basis of collective bargaining agreements containing provisions relevant for employees. In this manner, Agrokor confirms mutual responsibility and a high level of awareness among all stakeholders of the importance of ensuring healthy, safe and people-friendly working conditions.

Among other things, the collective bargaining agreements define in detail the issues such as protection of employee privacy and dignity, occupational health and safety, election and appointment of occupational safety coordinators, training in safe working practices, participation in hazard assessments, selection and provision of personal protective equipment, periodic medical examinations of employees working under special conditions, protection of certain employee categories, the right to refuse to work in case an employee's life is in danger, proposing measures for improving occupational safety, continuing cooperation with employer's authorized representatives and occupational safety experts, etc.

According to the regulations of the country of operation of individual Agrokor companies and the provisions of the respective collective bargaining agreements, all companies have established their respective Occupational Safety Committees. Such committees comprise the employer or its authorized representative, an expert in occupational safety, a coordinator of occupational safety commissioners, and an expert in occupational medicine. The Committees meet at least once every three months or more frequently, if necessary. At such meetings, the employer and employee representatives review the situation and undertake measures to ensure efficient implementation and organization of occupational health and safety activities to prevent and minimize all types of injuries, and particularly the workplace injuries considered most severe. The Committees plan and supervise the application of occupational safety rules and the related informing and training activities, propose measures aimed at prevention of workplace injuries and occupational illnesses, as well as promote continuous improvement in the field of occupational safety. In practice, all occupational health and safety issues are resolved through cooperation between the Management Board or its authorized representative and the occupational safety commissioner (appointed by the union).

Regular occupational safety activities are performed by one or more occupational safety experts. Such activities include standard occupational safety activities, keeping of required records, inspection of working tools and the working environment, preparation of working instructions, referral of employees to medical examinations according to the occupational safety and sanitary regulations, and supervision and coordination of activities of all representatives of the Management Board and employees participating in the implementation of health and safety measures.

All stakeholders share the responsibility and are very much aware of the importance of ensuring healthy, safe and humane working conditions.

## Rates of Injury, Occupational Illness and Days Lost

	2012	2013
IR	3.82	3.69
ODR	0	0.003
LDR	87.13	89.32
AR	6,835.96	8,037.87

IR - Injury rate

ODR - Occupational disease rate

LDR - Lost day rate AR - Absentee rate The Personal Protective Equipment Regulations define the equipment to be used for each position. The Training Plan and Program defines the specific occupational safety training requirements for each position and the occupational safety commissioner representing the interests of the employees may request a visit by a labor inspector if he/she suspects there are any failures the employer is unwilling to rectify.

The coordinator of occupational safety commissioners participates in inspections performed in case of serious workplace injuries, the employees participate in hazard assessments (or assessment updates), and responsible persons are appointed for testing high-risk machines and devices used for a particular type of activity.

During this reporting period, we continued to undertake activities at the level of individual companies aimed at implementing the international occupational health and safety standards,

namely ISO 14001 and OHSAS 18001. The purpose is to ensure application of the highest standards in ensuring a safe and healthy working environment, identify and control health and safety risks, minimize the risk of accidents, comply with legal regulations, and generally improve our business operations.

Pursuant to statutory obligations prescribed for employers and taking into account all aspects required to provide proper working conditions for the purpose of ensuring a higher level of prevention, we organized consultations for persons authorized by the employer to protect employee dignity in all companies within the Group.

By providing additional training and opportunities to raise the employees' awareness through educational workshops and work meetings, Agrokor supports the promotion and preservation of health of its employees, their family members and the wider community. Agrokor employees also enjoy additio-

nal and more favorable health insurance terms. In addition, general and specialist medical examinations in health care institutions are also provided for the employees and their family members.

During the relevant reporting period, we received three reports of age discrimination and five reports of verbal abuse. These cases were investigated by authorized professionals, witnesses and other persons involved. The facts of each particular case were established and appropriate solutions found. Disciplinary measures were applied in only one case.

As most room for improvement of productivity is found in mobilizing employees according to the strategic goals of the organization, open doors and continuous, sincere and cooperative communication are the best way to promote creativity and make an actual contribution to achieving the organization's goals and objectives by ensuring optimal involvement of all human resources.



### **Aspect: Training and Education**

Development of new technologies, improvement of business processes and market expansion for the purpose of satisfying customer expectations, result in additional workload and new tasks for our employees, which requires acquisition of new and improvement of their existing knowledge and skills. Thanks to our lifelong employee education programs, we manage to preserve jobs and raise the level of competitiveness of our employees by offering them a chance to work at different positions and within different companies belonging to the Group.

## Investing in New Knowledge and Continuing Education

Talent management and career development, provision of opportunities for employee advancement, theoretical and practical training and application of succession maps are integral parts of the process of planning systematic development, safe future, further progress and development of our companies. We are committed to searching for young talents, helping them develop and directing their progress, thus creating possible substitutes for each key position within our system. Depending on our assessments, we strive to find the best workforce the labor market has to offer.

The education and training system established, the increasing interest in learning, the results achieved and the development of particular academies within the Group as places where knowledge, skills and experiences are created and exchanged within our organization and investments in employee training guarantee sure return of the funds invested, successful business results and satisfaction of our business partners and customers.

According to our longtime practice, in this reporting period as well we adjusted the curricula and study materials used in Agrokor internal academies to our business and employee development needs in all key areas of activity: retail and wholesale, food and beverage production, agriculture, and other services.

The business strategy of Idea focuses on investing in education and trai-

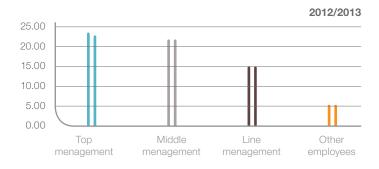


ning of employees as well as development of their competences, which is why the company established the Idea Academy which started operating in June 2013. The Academy includes five different training rooms, a conference and interview room, and offices equipped with state-of-the-art technology. The Academy's further development is the company's long-term investment the purpose of which is to create a regional training center for professional development of Idea's employees and employees of Agrokor companies based in Serbia, and ultimately a place which promotes lifelong learning and development in the Serbian business market.

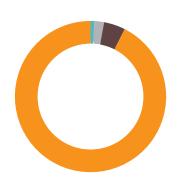
In 2012, different types of training and development programs were attended by 44,693 employees (68.40% internally) and in 2013 the number of participants increased to 54,078 (55.62% internally). Only 1% of the top management participated in the training programs, while middle management accounted for 2%, line management for 5%, and other employees for 96%.

The business strategies of Agrokor companies place an emphasis on investing in employee education and training as well as development of their competences.

## Average Number of Hours of Training by Employee



## Shares of Employees in Training and Development Programs by Category



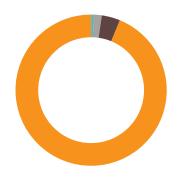
Middle management

Top management

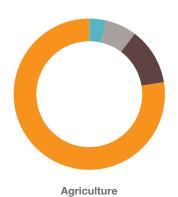
### Number of Hours of Training by Employee Category and Type of Business Operations Performed (shares in %)



**Food and Beverages** 



**Retail and Wholesale** 



Line management Other employees

As we are one of the largest employers in the region and there are many common issues requiring cooperation and appropriate solutions, we established an open dialog with several external institutions such as: Ministry of Education, Science and Sport, Ministry of Labor and Pension System, Croatian Employment Service, Institute for Health Insu-

We are open to discussion and cooperation with all public institutions based in the countries we operate in if they believe that, with our expertise, we can contribute to creating stimulating public policies.

rance, Pension Insurance Institute, State Inspectorate, Fund for Professional Rehabilitation and Employment of Disabled Persons, Institute for Occupational Health and Safety, Gender Equality Ombudsman, etc. In addition to these institutions in the Republic of Croatia, we cooperated with the competent institutions in the Republic of Serbia and Bosnia and Herzegovina as well. We mostly took part in discussions preceding the drafting of new regulations or amendments to the existing ones.

For the purpose of supporting our HR departments, we organized, internally and in cooperation with external institutions, various work conferences and consultations on the topic of proper application of valid regulations from the field of labor and social legislation of the Republic of Croatia, Republic of Serbia and the Federation of Bosnia and Herzegovina. The aim of such meetings was to exchange experiences, discuss practical issues concerning the imple-

mentation of specific regulations and learn how to better apply the provisions of such regulations as well as propose possible improvements.

In addition to all our activities carried out for the purpose of ensuring employee rights, protection, education and development, in the next period we will focus on: promoting innovation and innovation culture in Agrokor companies with the aim of improving and upgrading our business processes and introducing new products and services designed by our employees; improving internal communication and promoting key values at all corporate levels; coordination of further activities concerning the implementation of the OHSAS 18001 standards through mutual cooperation between companies and transfer of the existing knowledge; as well as participation in local and national initiatives and projects pertaining to education and employment of young people and occupations in demand.

### **Employee Care Program and Cooperation with the Unions**

The Agrokor Group continues to provide an intensive employee care program, including immaterial rights such as safety at work, protection, protection against all forms of discrimination and harassment, occupational health, and professional training and education at the expense of the employer. These areas are regulated under special sections of the new collective bargaining agreements signed in 2012 and 2013. The employers perform the obligations assumed in their respective companies. In addition to being supervised by union representatives, the implementation of and compliance with the obligations assumed under the collective bargaining agreements are also supervised by elected representatives of employees (workers' councils). Workers' councils have been established in all companies in the Republic of Croatia. In the Republic of Serbia and Bosnia and Herzegovina, the implementation of collective bargaining agreements is supervised by the unions.

The Agrokor Group continues to provide an intensive employee care program, including immaterial rights such as safety at work, protection, protection against all forms of discrimination and harassment, occupational health, and professional training and education.

In 2012, we maintained the existing relationships and retained the rights and obligations from earlier years. In 2013, we entered into negotiations that lasted throughout the first half of the year and resulted in new collective bargaining agreements signed for all our production companies in Croatia (Agrolaguna, Irida, Belje, Ledo, Jamnica, Mladina, PIK Vrbovec, PIK Vinkovci, Zvijezda, Sojara, Solana, VUPIK) and amendments to the collective bargaining agreements signed for Tisak and Konzum. The negotiating process was both formal and informal. The interests of both contracting parties were

respected and accurate information and data were presented as arguments supporting particular views, since both parties were aware of the economic situation and the need to reach a compromise. It should be emphasized that the unions understood the necessity to give up on certain of their interests in order to maintain the partnership with the employer, which has been developing and improving for a long time. Social dialog processes performed by the Group may be informal and institutionalized. A combination of these two mentioned approaches may be applied for social dialog purposes at the level of the Group or at the level of a particular company as well. The process includes all types of negotiations, consultations or simple exchange of information between the employer and union representatives or selected representatives of employees regarding issues of common interest in connection with each company's economic and social policies.

Social dialog within the Group is based on social partnership. We believe that we work together in order to achieve the goals and find solutions to the satisfaction of both parties. This strategy is both assertive and cooperative. Both parties have opted for the above-mentioned cooperation model which ensures a non-hierarchical relationship between the parties to the negotiations.

Under the new collective bargaining agreements entered into in 2013, employee salaries, meal benefits and bonuses provided by the Croatian companies did not change. The employers based their negotiations on the demand to "maintain the level of employee salaries" and to adjust other material rights to the maximum annual non-taxable amounts according to the Personal Income Tax Ordinance: Christmas bonus. Easter bonus, annual leave benefit, children's gift, jubilee benefits, mutual aid. Despite the challenging business conditions, our employees enjoy more material rights than guaranteed by law.

Our employees retained their right to uninterrupted service in case of changing employers within the Group. Employees with impaired working ability are protected, female employees are Social dialogue within the Group is based on social partnership.

positively discriminated in the sense that they are entitled to an extra day of paid leave for medical examinations and that an employment contract signed with a female employee aged 55+cannot be terminated, and severance pay payable to retiring employees equals three average salaries.

The rights of our employees, other than managers, are protected under collective bargaining agreements (if signed). Collective bargaining agreements are signed in all Agrokor companies except those with only a few employees and without an organized union.

In 2012, Serbian companies Kikindski mlin, Dijamant Agrar, Frikom and Nova Sloga renewed their collective bargaining agreements maintaining the same level of rights, while Dijamant signed a new collective bargaining agreement in 2013. In the Federation of Bosnia and Herzegovina, Konzum and Sarajevski kiseljak renewed their collective bargaining agreements for a term of one year in 2013. At the end of 2013, the following companies had collective bargaining agreements in place: Agrolaguna, Ledo, Jamnica, Zvijezda, PIK Vrbovec, Belje, Solana Pag, Sojara, Mladina, Irida, PIK Vinkovci, Konzum, Tisak, Vupik, Konzum Sarajevo, Sarajevski kiseljak, Frikom, Dijamant, Dijamant Agrar, Nova Sloga, Kikindski mlin, and Idea.

#### Appendix 2

List of major unions in The Agrokor Group

### **Investments in the Community**

Agrokor considers its investments in the communities it operates in and its contribution to different segments of the society a significant part of its overall operations.

Our activities in the communities in which we operate facilitate the creation of transparent and stimulating environments. We help communities with donations and sponsorships in an effort to support charitable organizations, sporting and cultural events, preservation of cultural heritage, scientific and educational institutions, and activities focused on children and youth.

In 2012 and 2013, pursuant to its sponsorship and donation policy, Agrokor supported many important projects in the communities in which it operates. A lot of attention was focused on projects the purpose of which is to promote and preserve the cultural heritage of Croatia. In the past two years, through its sponsorships, Agrokor supported numerous cultural projects, such as the Rijeka Summer Nights event, the Ulysses Theater program, the traditional Neretva Boat Race, and the International Rijeka Carnival. We keep supporting the Croatian Village Singing Association Šestine through our program of donations.

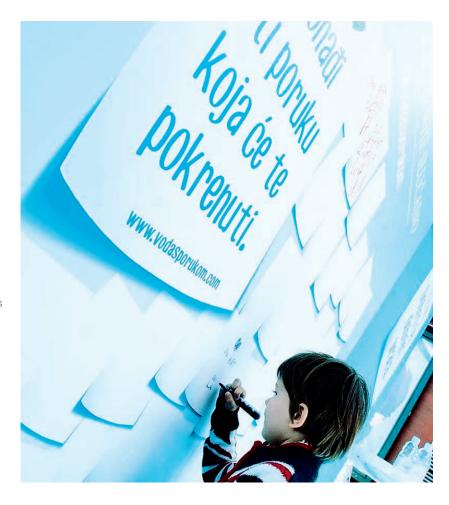
Just like in the previous years, Agrokor and the companies belonging to the Group supported many projects the purpose of which is protection and improvement of the lives of children and young people, and operation of associations providing care to disabled persons and other endangered social segments. In 2012 and 2013, Konzum continued carrying out activities under the Let's Put Children Back on the Playgrounds (Vratimo djecu na igrališta) project. Under the mentioned project, Konzum builds and equips children's playgrounds in cities across Croatia. Konzum also made donations to support the renovation of kindergartens and donated toys to pediatric hospital departments in several cities in Croatia.

Furthermore, Jamnica launched its Jana - Water with a Message (Jana - voda s porukom) campaign with the aim to help the needy segments of the society. The Jana - Water with a Message campaign contributes to a number of charity activities across Croatia, including helping the Zagreb Diabetes Association to raise money to buy insulin pumps for diabetic children, providing support the Children's Happiness (Dječja sreća) association, the Us (Mi) association from Split, the Ladimirevci SOS Village, the Imagine (Zamisli) association that helps disabled young people, etc. Charity activities under this valuable Jana campaign will continue to be performed in 2014 as well.

Sponsorships concerning the protection of human rights and preservation of social values are some of the most significant sponsorships provided by Agrokor. Agrokor thus continued to support the Croatian Helsinki Committee for Human Rights in 2013 as well.

Agrokor has been a significant sponsor of Croatian sport associations and clubs for years. In this period, Agrokor continued its partnership with the Croatian Olympic Committee and sponsored many other sport clubs in Croatia: Basketball Club Zagreb, Handball Club Split, Women's Basketball Club Jolly, Women's Volleyball Club Vukovar, and Water Polo Club Jug, and supported the organization of sporting events such as the world famous ATP tennis tournament in Umag and the Fiumanka sailing event.

Agrokor considers its investments in the communities it operates in and its contribution to different segments of the society a significant part of its overall operations. Therefore the Group wishes to provide support through sponsorships and donations to such projects, institutions and organizations which are relevant for the development of the society as a whole and ensure a better future.



### **Product Responsibility Indicators**

### **FOOD - Quality and Information**

As one of the fundamental human needs, food also plays one of the most important roles in health preservation. An unbalanced diet will result in malnutrition and disease due to deficiency of essential nutrients or obesity, health problems associated with obesity and excessive intake of nutrients. Different external impacts, such as lifestyle, climate, economic aspects and level of education, play an important role and directly or indirectly affect the quality of one's diet and health. The role of the food industry certainly plays one of the most significant roles in the modern world we live in and influences the dietary habits of consumers. In many areas, the industry is setting standards, participates in the promulgation and enforcement of regulations and laws, and affects customer choices and behaviors through its offer of products and provision of information.

Our corporate mission is to comply with the highest quality standards in the production and distribution of food and agricultural products and we are able to provide the best value for money to our customers through our retail network, while respecting the principles of fair market competition and social responsibility.

We always strive to offer tasty food with high nutritional value and we also offer plenty of information in order to help the customers choose the products in accordance with dietary needs, health condition and lifestyle.

Research & Development is a central department which provides product development guidelines as described above. In 2012 and 2013, development activities were aimed at ensuring a higher level of compliance of the entire product range with nutritional principles and guidelines required to ensure a balanced diet: reduction of the caloric value of products primarily by reducing the fat content, improvement of the nutritional fat profile, reduction of sugar and salt content, and enriching products with vitamins, minerals and other functional ingredients.

#### We Offer a Healthier Choice

### **Reduction in Caloric Value**

Vegetable oil and fat are the products whose caloric value was reduced by reducing the fat content. Zvijezda launched a new fat baking product for industrial use where fat content was reduced from 80% to 70%. The company also reduced the fat content in the Klasik baking spread to 60%. In addition, Zvijezda launched the Margo aero spread, a new product ensuring better spreadability, greater volume and improved texture achieved through the process of aeration. Dijamant launched its Dobro jutro FIT, a semi-soft type of margarine with a total fat content of 40%.

Frikom launched its Light popsicle that has 43% less calories (from 168 kcal to 95) and is now also suitable for diabetics due to improvement of its nutritional content.

A significant reduction in calories (by 30%) was achieved in the case of the Sarajevski kiseljak Sensation Lime-Kiwano beverage as well.

### **Improvement of Nutritional Fat Profile**

In the production of 80% of our Ledo frozen puff pastry product range we now use margarine which does not contain trans fatty acids, thus also reducing the use of margarine with trans fats by 382 tons per year.

### **Reduction in the Amount of Sugar**

The amount of sugar contained in part of Jamnica's product range, namely in Juicy Fruits Orange, Juicy Fruits Nectarine and Juicy Fruits Red Orange Juices and the To Apple Juice was reduced by approximately 40%.

Frikom's ice cream product Light has only 95 calories and is suitable for diabetics.



Sarajevski kiseljak Sensation Lime-Kiwano now has 30% less calories.

#### **Salt Reduction**

The amount of salt was significantly reduced in the product range of PIK Vrbovec. The absolute salt content was reduced by 10% in the case of Round Ham, Mortadella and Mortadella with Olives. We also launched a project for reducing the salt content in all PIK branded products (durable sausages, durable and semi-durable cured meats, semi-durable sausages, ham).

#### **Adding Functional Ingredients**

Zvijezda launched its new Omegol 4 plus functional oil rich in omega 3 fatty acids, which also contains extra virgin olive oil, Omegol dressing with omega 3 fatty acids suitable for vegetarians, and the spreadable margarine Margo Balance enriched with magnesium. As far as adding functional ingredients for the purpose of raising product quality is concerned, Dijamant improved the following products: Dijamant Junior mayonnaise enriched with vitamins E, A and D3, folic acid, B12 and B6, Dijamant Junior ketchup enriched with vitamin C, and Dobro jutro Fit enriched with vitamins E, A and D3, and calcium.

#### **Provision of More Information**

Today, customers face a difficult task of choosing from a rich and diverse offer of products. The products are very often changed, new products are launched, and the industry strives to be dynamic and innovative. In such circumstances, it is very important to help our customers

Added value for our customers – information concerning the intake of nutrients ensuring a balanced diet.

choose the products as easy as possible by providing them easily accessible, clear and comprehensive information. Improvement of our services aimed at informing the customers about the nutritional content of our products is one of the top priorities in all our food companies.

As product quality and safety are the key factors for gaining and maintaining customer trust, we systematically invest in knowledge, equipment, technical skills, services, marketing and customer communication in an effort to provide high quality products and thus gain customer trust and ensure customer satisfaction. By addressing specific customer demands, four of Agrokor companies (Belje, Dijamant, Ledo BiH and PIK Vrbovec) have satisfied the Halal standard requirements for a specific group of products that meet the quality attributes and may be consumed by the followers of Islamic religion. In 2013, PIK Vrbovec became one of Agrokor's ten Kosher certified companies, which

means that it makes products according to Jewish food laws.

We also aim to bring our products closer to special customer groups that choose specific products for medical reasons. This particularly applies to customers that are allergic or intolerant to certain food ingredients. This is why products supplied by different companies indicate soy free, gluten free, etc. The packaging of each product also provides various other information relevant to our customers, such as no preservatives, natural aromas, no artificial colors, no sugar added, etc.

One of the aspects of optional product labeling is indicating the content of certain nutrients in the recommended amount required to be consumed for the purpose of achieving a balanced diet. The entire Frikom ice cream range includes optional product labeling in the form of GDA (Guideline Daily Amount), stating the number of calories in the recommended serving amount. An extended nutritional table indicating the number of calories was also added to the entire range of frozen fruits, seafood and most vegetable products. 20% of Ledo's product range includes GDA labeling and 10% of the company's products also contain nutritional claims, such as 'rich in omega 3' in part of the seafood (fish) product range. Jamnica included the information about calories in its range of Jana flavored waters.





Jamnica has also included the caloric value information on its range of Jana flavored water products.

### Life Cycle Phases in which Product and Service Impact on Health and Safety are Assessed and the Percentage of Important Product and Service Categories subject to such Assessment

Agrokor companies have embraced quality as their guiding principle and consider the establishing of a management system platform a priority ensuring food safety, compliance with statutory requirements and internationally recognized standards, as well as exceptional value for the customers.

### We consider assurance of the quality of our products, processes and services an imperative.

The quality management systems used in Agrokor companies are in compliance with the relevant international standards (ISO 9001, ISO 14000, ISO 22000, OHSAS 18001:2007, HACCP, GMP+, Global G.A.P., IFS, BRC, etc.) and are regularly audited by renowned certification authorities that provide input and support our efforts aimed at introducing innovative changes and improvements. A list of certified systems of all companies included in this Report is provided in Attachment 3.

Systematic assurance of food safety is based on HACCP (Hazard Analysis and Critical Control Point) principles applied to identify, assess and control potential risks for prevention purposes. This is a systematic code of technological process control that serves to identify potential risks in any phase of a product's lifecycle, from input and product development, production and logistic chain, to waste disposal.

We promote
high quality
standards as well as
share them with our
suppliers, partners
and buyers.

The sustainability of product and service quality levels reflects a high level of motivation among our employees in general, as well as at particular levels of operation. Homogeneity in understanding and managing risks is achieved by using numerous available tools and knowledge acquired on the basis of targeted and well-designed training techniques and materials. By using such methodology, cooperating with renowned local and international institutions across the world (Faculty of Food Technology and Biotechnology, Croatian Veterinary Institute, Campden BRI, NSF International, etc.) and monitoring the best practices, we fulfill the key requirements for ensuring long-term stability, security and viability of all Agrokor production resources.

We expect the same level of quality standards from our business partners. The process of selecting and evaluating suppliers in modern business conditions, in which globally recognized production and operating systems are applied, is performed in all Agrokor companies at a continuous basis. In this way, we often reach long-term agreements with particular suppliers, thus establishing completely new levels of trust, openness and partnership. For that purpose, we design and use appropriate methods for complete evaluation according to objective criteria specific to a particular product.

The evaluation of a selected supplier is based on several key requirements such as: competence, capacity, commitment to product and service quality, consistence, stability, value system compatibility, clean operation, and business communications. If they satisfy these requirements, they become company associates provided with a long-term estimate of the demand expected to be met through their production and distribution systems.

As product quality and safety are the key factors in gaining and maintaining customer trust, we systematically invest in knowledge, equipment, technical skills, services, marketing and customer communication in an effort to ensure unquestionable safety and high quality of our products, thus ensuring customer trust and satisfaction. Agrokor companies possess a large database on the basis of which they analyze customer satisfaction and their responses, as well as include the customers in the mutual communication and interaction system. We occasionally use the services provided by third parties that perform anonymous customer surveys or we use benchmarking processes to compare our products and services in the domestic and international markets. Regaining customer trust and retention of customers, their loyalty and level of satisfaction are the most reliable quality indicators.

No national or European regulatory frameworks or standards were violated during this reporting period in the field of product monitoring, with an emphasis on safety and potential health impacts.

#### Appendix 3

A list of certified systems of all companies included in this Report

## Type of Product and Service Information Required in accordance with Organizational Procedures and the Percentage of Important Products and Services subject to such Informing Requirements

By accepting all transposed statutory provisions and following Croatia's accession to the EU, all our companies fully conformed and adjusted, in terms of content, their product information on the packaging, depending on the category and nature of each product. A special emphasis is put on the content of information referring to allergens as well as the accuracy of such infor-

mation. This is very important from the aspect of direct impact on health. A new order of stating nutritional values, information about product use, and other optional labels, as well as modern design and packaging materials, represent added value to the extensive range of our brands, especially Konzum's store brands and provide us with more competitive strength in the

market. Along with these activities, we conduct numerous media-covered marketing campaigns, campaigns through printed materials, brochures, flyers and posters, promotional tasting opportunities in stores and at attractive outdoor locations, including interaction with visitors and involvement of the entire local community.

## Customer Satisfaction Practices, including the Results of Customer Satisfaction Surveys

The Agrokor Group and its members pay particular attention to customer satisfaction. We make a distinction between corporate customers and consumers of our products and services. In Agrokor' system, customer satisfaction monitoring as part of market research is carried out in predefined periods using predefined mechanisms, such as standard instruments and objective measuring methods. Such standardized measuring approach allows us to collect and analyze our results in a systematic manner, which provides benefits to the Group and its companies in two significant ways: equal evaluation practices applied by all our members, allowing us the possibility to compare the impacts of individual companies. We are also able to systematically analyze our results over time. Objectivity in the data gathering process is a high priority, and is achieved by collecting data and interpreting the same by established international research institutes and agencies.

Two major customer satisfaction monitoring projects are currently being implemented within the Group: continuous monitoring of compliance with the retail service standards and a two-year satisfaction survey involving large customers of our production companies. The first project aims to assess compliance with standards at stores by

using the so-called 'mystery shopping' method and is implemented several times a year in our retail chains in Croatia (Konzum), Bosnia and Herzegovina (Konzum BiH) and Serbia (Idea). The survey is conducted by GfK and the project examines different aspects of the service standard: store tidiness and cleanliness, staff's communication with customers, communication between staff members for the purpose of satisfying customer needs, providing appropriate feedback to customers, cash registry service, etc. The results of the survey are analyzed over time at the level of each company and at lower levels (regions and business areas), thus allowing timely response in terms of improving particular elements of our in-store service to increase the satisfaction of our end customers.

By applying the Mystery Shopping and CATI (Computer Assisted Telephone Interviewing) methods, we monitor and improve customer satisfaction

The second major project relates to business to business satisfaction surveys conducted in our production companies, measuring the satisfaction of our wholesale and retail partners, hotels, restaurants, etc. The survey is conducted by Ipsos Puls, one of the top five market research agencies in the world, through CATI (Computer Assisted Telephone Interviewing). The last survey round was completed in 2013 covering seven companies belonging to the Group (Dijamant, Frikom, Jamnica, Ledo, PIK Vrbovec, Sarajevski kiseljak and Zvijezda) in three markets (Croatia, Bosnia and Herzegovina and Serbia).

The results of the survey conducted among B2B customers of Agrokor companies indicate high levels of satisfaction recorded in the course of a number of years, both at the general level and in the case of particular aspects of our products and services. We also identified the key elements that help increase customer loyalty and elements that should be considered priorities in the process of improving each of the covered by the survey. Based on the results and findings of the survey, the companies and the Group will continue to improve each aspect of their products and services since we consider customer satisfaction one of the core drivers of the Group's business success.

## Programs Ensuring Compliance with Laws, Standards and Optional Codes Concerning Marketing Communication, including Advertising, Promotion and Sponsorship

Agrokor companies conduct most of the communication with their customers by including the mandatory declaration and marketing information on the packaging, as well as through media communication (ATL and BTL). Online communications and social networks are becoming increasingly important. In all the mentioned forms of communication, the companies continue to apply a conservative approach to advertising, guided by the principles of ethics and morals. Special attention is dedicated to ensuring accuracy and clarity of declarations on the packaging, which further ensures that the customers understand all the key information provided.

Although the Group does not posses a written code of marketing communication, we apply the generally accepted communication principles, including the best global practices and advice received from marketing agencies, professional associations and other institutions engaged in marketing. In addition, we rely

on advice and opinion provided by competent ministries and other competent government institutions.

The communication principles that we systematically apply are equally applicable in the Republic of Croatia and other markets in which even more attention is dedicated to advertising due to specific features of particular markets, such as linguistic, cultural and other distinctive features. One of the functions of the Central Marketing Department is to supervise the implementation of all marketing activities in all member companies and provide advice in case of any concerns regarding the ethics or morals of any marketing message.

During the reporting period, no significant complaints were made to the companies belonging to the Group concerning their compliance with legal regulations and rules of marketing communication, including advertising, promotion and sponsorship.

We apply the best global practices in our marketing communication and advertising activities

## Significant Fines for Non-compliance with Laws ad Regulations Concerning the Supply and Use of Products and Services

No significant fines for non-compliance with the laws and regulations concerning the supply and use of products and services were imposed on most of the companies belonging to the Group during the reporting period. However, according to a decision passed by the Competition Commission of the Republic of Serbia from May 2013, Belgrade's frozen food producer Frikom was fined EUR 3,159,107.80 for its dominant position in the relevant industrial ice cream wholesale market. The Commission's finding pertained to the 2008-2010 period when standardized sales contracts were used, which the Commission found to contain several terms that prevent effective competition. Convinced that such practices were

customary in the relevant market at the time, Frikom appealed the decision, but the appeal was not approved.

When placing a product on the market, special attention is dedicated to the use of proper product declarations. Each Development Department includes a person responsible for monitoring the regulations, obligations and practices concerning product declaration and placing products on the market. Our experts and employees very often participate in teams responsible for drafting new ordinances and laws concerning the placement of products on the market established in various institutions and ministries.

## Open Innovations as Support to Socially Responsible Business Practices

An efficient response to the needs of a highly competitive market – availability of ideas, knowledge, technologies and skills at the global level

In the past ten years, we have witnessed significant changes in business conditions in Croatia and the region. As participants in the open and highly competitive European market, we can expect similar trends in the upcoming period as well. Until recently, it was enough to rely on one's own resources in the process of developing innovative products and technological solutions to ensure the required growth. However, despite major investments in internal research & development activities and human resources, it is clear that the former 'invent yourself' model is no longer sufficient. Product market cycles are becoming shorter and shorter, while innovative companies are becoming increasingly important, which is why good connections with external partners and customers are now considered a key requirement. Good connections ensure the possibility of using ideas, knowledge, technologies and skills that exceed our own capacities and a knowledge base that covers different industries and technical disciplines, which is the only way to quickly and

effectively respond to the needs of the increasingly demanding market.

In line with the predominant global trend, Agrokor also launched an initiative to prepare for the introduction of a new innovation concept, i.e. the concept of open innovations, which relies on combining internal and external resources in order to create innovations in a faster and more efficient manner. By investing in the development and implementation of such a model, Agrokor wishes to ensure greater efficiency of innovation processes, better flow of knowledge and use of internal and external potentials, implementation of new ideas in different areas of innovative product development, solution of technological problems, increased efficiency, cost minimization and internal process optimization, as well as challenge posed by the implementation of socially responsible business practices at Agrokor companies.

In early 2013, Agrokor thus signed a cooperation agreement with NineSigma, one of the leading companies in the world engaged in the implementation of open innovation concepts. Through cooperation with NineSigma, Agrokor and its companies are allowed access to and use of the world's largest network of innovators and a knowledge base covering different industries and technical disciplines. The inves-

tment into such cooperation marks the beginning of a new innovation strategy based on the open innovation concept, which we will continuously strengthen and use in all our business processes for the purpose of strengthening our own research and development capacities, integrating new knowledge, extending the product portfolio to include innovative solutions, and successfully responding to challenges put before us by the competition.

NineSigma is working with Agrokor and its companies in order to precisely define specific problems and demands in relation to the global innovation network. The company also actively participate in the process of selecting the best innovative concept offered and the process of defining the best manner of cooperation between the innovators and Agrokor, including cooperation based on license purchasing, consultancy, research projects, or any other form of cooperation.

In early 2013 Agrokor signed a cooperation agreement with NineSigma, one of the leading companies in the world engaged in the implementation of open innovation concept









## Organization's Views Concerning Particular Public Policies and Participation in the Process of Developing Public Policies and Lobbying

Our business environment provides defined boundaries within which our companies conduct their business operations. The representatives of Agrokor companies therefore actively monitor all events at the national and European levels to timely identify any upcoming changes that our business processes and procedures need to be harmonized with. As members of professional and business association (Croatian Chamber of Economy, Croatian Employers' Association, FoodDrinkEurope, etc.), we express our views and participate in creating platforms for presenting the challenges we face in our business operations, we regularly respond to all requests for in-

formation based on which the real image of our operating systems is formed, and participate in activities launched by ministries, various agencies, counties, educational institutions, scientific institutes, etc. After the Republic of Croatia joined the European Union, the field of public consultation expanded, so our employees engaged in different areas of activity contribute, if so requested by relevant entities, their knowledge and experience to help design sector-specific and program documents relevant to the drafting of regulations and laws and important for the possibility of financing business sector activities from national and European sources.

We are members of various professional and business associations, through which we initiate business sector activities using both national and European sources

## 3.3

# Environmental Impact Indicators

The general conclusion arising from such independent certification audits and inspections is that we comply with all statutory and other requirements. This reflects the fact that all our companies keep track of environmental legislation and regularly assess their compliance with statutory and other requirements. Such compliance results in full control of all environmental aspects and systematic and actual improvements and continuing minimization of adverse environmental impacts, providing, besides environmental, financial benefits as well.

## **Environmental Impact**

In 2012 and 2013, further progress was recorded in Agrokor systematic environmental management. This Sustainability Report presents the situation in the system covering all 19 key environmental indicators in 24 companies in four countries (Croatia, Bosnia and Herzegovina, Hungary, Serbia).

Ledo Kft. Hungary suspended its ice cream production in 2012, which is why it is not included in this Report. Kikindski mlin a.d. was included in our sustainability reporting system for the first time. Kor Neretva d.o.o. is a new company that continues to engage in repurchase of fruits and vegetables in the Neretva Valley. In the past ten years, Konzum DAD, Neretva Fructus and AgroFructus were also actively involved in the repurchase of fruits and vegetables, but to different extents.

In the past two years, Agrokor received three new environmental management system certificates. In 2012, two of our retail companies had their EMS (Environmental Management System) certified according to the requirements of the international ISO 14001:2004 standard - Idea d.o.o., Belgrade, Serbia, and Konzum d.o.o., Sarajevo, Bosnia and Herzegovina. Earlier, Konzum d.d. in Croatia, Idea in Serbia and Konzum d.o.o. in Bosnia and Herzegovina became the first and only retail companies in their respective countries that comply with ISO 14001. Furthermore, in early 2013 Vupik d.d., Vukovar, was successfully certified according to ISO 14001, Zvijezda's EMS was recertified in 2012 and five companies successfully completed their EMS recertification in 2013, namely PIK Vrbovec d.d., Jamnica d.d., Konzum d.d., PIK Vinkovci d.d., and Sojara d.o.o. Regular system audits were conducted by certification companies in our other companies as well. On August 31, 2013, as many as

18 Agrokor companies (12 in Croatia, 3 in Bosnia and Herzegovina and 3 in Serbia) already held the most valuable international environmental certificate, ISO 14001:2004, and established EMS systems. The EMS implementation project continues by relying on the synergy of our knowledge. Kikindski mlin a.d. and Nova Sloga a.d. of Trstenik, Serbia, started to implement their EMS systems in 2013 and are expected to have them certified by the end of 2014.

Numerous inspections were carried out in Agrokor companies (environmental protection, water protection, occupational safety, fire protection, sanitary inspection, etc.). All requested documents and information were made available to the inspectors. No violations of the law were recorded, while minor objections were remedied through effective corrective measures, so that no fines or non-monetary sanctions were imposed. As regards the relevant environmental regulations in Croatia between 2012 and 2013, we will highlight the new Environmental Protection Act (Official Gazette no. 80/2013), Nature Protection Act (Official Gazette no. 80/2013), and Sustainable Waste Management Act (Official Journal of the Federation of Bosnia and Herzegovina no. 66/2013).

Agrokor systems proved an efficient corporate management tool. According to the modern environmental protection concept, EMS is an integral part of all business processes (input – processes – output) and such systems are not limited to resolving only technical problems, but include all impacts of business processes within and outside the company.

14 of our companies prepared Environmental Reports for 2012, eight more than in 2011, including (in the order of release dates): Belje d.d., PIK Vinkovci d.d., Ledo d.d., Croatia; Sarajevski kiseljak d.d. BiH, Solana Pag d.d., Jamnica d.d., Vupik d.d., Ledo d.o.o. BiH, PIK Vrbovec d.d., Frikom a.d., Serbia, Konzum d.o.o. BiH, Zvijezda d.d., Idea a.d. Serbia, and Dijamant a.d., Serbia.

These reports represent an excellent mechanism for controlling the effectiveness of EMS systems because they identify in a simple, precise and measurable way all positive and negative shifts in a company's activities that relate to environmental protection, as well as other issues. The preparation of such a report demonstrates progress in systematic company management and is also a tool for encouraging new improvements in the next period.



### Employee training continues to be a driver of system development at all levels of operation.

It is important to ensure training (in environmental protection) to top management, environmental managers, employees in key environmental positions, internal environmental auditors, new employees, but also to our customers, suppliers and partners.

We continue to take advantage of mutual synergies and learn from each other. Four groups of our employees in 2012 and two groups in 2013 received training in, among other things, environmental protection, management systems and sustainable development at Agrokor's Futura Academy. This program is intended for young employees of the Group, ensuring them an opportunity to acquire new knowledge.

In April 2012, an event called Agrokor Environmental Protection Days was held in Osijek for the first time. 52 employees from 24 Agrokor companies from Croatia, Bosnia and Herzegovina and Serbia attended the event. 19 presentations were held, 15 of which by different companies belonging to The Agrokor Group. Guest lecturers included representatives of the Parliamentary Committee for the Protection of Urban Environment, the Ministry of Environmental and Nature Protection, the Town of Beli Manastir, and the Kopački rit Nature Park. In addition to giving and attending presentations, socializing with and meeting our colleagues, education and open discussion concerning environmental protection, we also visited sites in the nearby village of Belje that are interesting in the context of environmental protection (new, modern winery in Kamenac and the Čeminac Dairy Farm), as well as explored the beautiful natural features of the Kopački rit Nature Park. Agrokor's Environmental Engineering Department concluded that more relevance should be given to issues concerning the environmental management system and that efforts should be made in order to give more impetus to training processes, communications and programs in the field of environmental protection. We wish to ensure that EMS enjoys the credibility it deserves and becomes a

driver of sustainable development in Croatia and the entire region.

New investment projects brought positive results in terms of minimizing adverse environmental impacts. These projects were mainly related to better waste management, optimization of energy and natural resource consumption, rational use of raw materials, etc. Wastewater is an environmental aspect that receives special attention because the food industry uses large amounts of water for washing its facilities and ensuring compliance with high hygienic production standards. We use cleaner production methodologies to minimize our water consumption and emissions of harmful substances into wastewater.

We would like to highlight our charity/ environmental project the purpose of which is to collect plastic bottle caps with the aim of raising funds for the Croatian Association of Leukemia and Lymphoma Patients. Zvijezda d.d. was the first within the Group to join the project in early 2013 to help the Association. The bottle cap collecting project soon spread across the entire Group. Most Agrokor companies in Croatia are now involved in the bottle cap collection initiative: Agrokor Energija d.o.o., Agrokor trgovina d.d., Agrolaguna d.d., BELJE d.d., Irida d.o.o., Jamnica d.d., Konzum d.d., Ledo d.d., mStart d.o.o., PIK Vinkovci d.d., PIK Vrbovec d.d., Sojara d.d., Solana Pag d.d., Tisak d.d., Vupik d.d., Zvijezda d.d., and Agrokor d.d..

The purpose of the project is to raise funds by selling the collected polyethylene bottle caps (which may be recycled into a new product) for co-financing of the supply of expensive medicines for medical treatment of the members of the mentioned association. In addition to the charity aspect of the project, it is also important to note that huge amounts of bottle caps no longer end up as waste in nature. We collect bottle caps identified as production scrap (by companies using PE bottle caps in their business processes) and caps from bottles used within our companies, but we also bring in bottle caps from our households. Entire families of our employees joined the project and are spreading it across kindergartens and schools. This is an open initiative and anyone can join. The more contributors, the greater success.

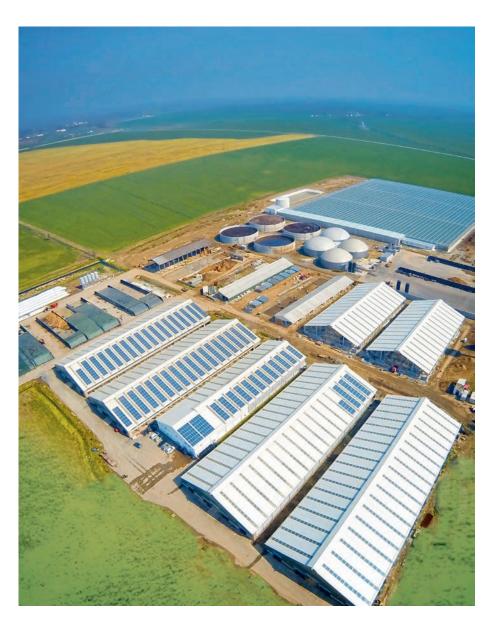


We would like to highlight our charity/ environmental project the purpose of which is to collect plastic bottle caps with the aim of raising funds for the Croatian Association of Leukemia and Lymphoma Patients.

During the reporting period, our companies monitored their environmental impact indicators more efficiently, but also made various improvements in the field of environmental protection.

**PIK Vrbovec** continues to be the number one company regarding the organization and completeness of its EMS. PIK's management system was established very precisely and its EMS serves as model example in many other companies. By developing an IT application for managing non-conformities found during audits and inspections as well as performance of corrective and preventive measures, we achieved additional progress in improving our non-conformity management system. PIK also made improvements in its waste management activities, i. e. underground diesel fuel tanks were removed from the site and better protection of soil and underground waters was ensured.

Agrokor energija carries out intensive activities associated with the use and application of renewable energy sources. Having developed its biogas plants, the company became a national and regional leader in the recovery of waste and by-products of agricultural production. The 1 MW Gradec biogas plant was put into operation in 2012 and the 2 MW Mitrovac biogas plant in 2013. From the environmental aspect, this is best way to dispose of various organic inputs (raw materials) that are used for making the following three products: organic fertilizer, heat and electricity. What makes these biogas plants special is that they predominantly use pig manure to generate biogas, while the rest of the input is obtained from contractors in different areas of food production, including PIK Vrbovec that is only seven kilometers away. These were only the first of a series of continuing investments in biogas facilities, and we are also working on a project including the installation of new solar power generating equipment in accordance with the initial photovoltaic system project, i.e. installation of solar cells on the roof of the Konzum Maxi store in Sopot.



Agrokor completed the construction of a new greenhouse for hydroponic production of vine tomatoes covering 4.5 hectares. It comprises a farm, biogas plant, solar power plant and a greenhouse that uses part of the energy generated by the biogas plant.



Sirana Špin installed 630 panels with a total power capacity of 145 kW, while the winery installed 1260 panels with a total power capacity of 289.8 kW.

**Agrolaguna** has solar panels, leased from Agrokor Energija, installed on all its roof surfaces, which allows power generation without combustion. Sirana Špin installed 630 panels with a total power capacity of 145 kW, while the winery installed 1260 panels with a total power capacity of 289.8 kW. Agrokor Energija sells its electricity to HEP at preferred prices, while Agrolaguna buys electricity from HEP at regular prices. Agrolaguna receives 5% + VAT of the amount received from HEP. After the new Špin Cheese Plant (Sirana Špin) was put into operation in 2013, our adverse environmental impacts were significantly reduced: we replaced the heating oil with liquefied petroleum gas in the boiler room, installed air conditioners using environmentally acceptable refrigerant, as well as built a wastewater treatment plant and a grease trap for removing grease from roads and the kitchen of the catering establishment. A wastewater treatment plant is being designed for the Winery and Oil Mill site, while the Town of Poreč is working on building a municipal treatment plant.

Pik Vinkovci has an exceptionally well organized management system. Full support from the Management Board, professionals in charge of running the management systems and their direct daily cooperation are the strong points of this environmental management system. This is also a result of a high level of environmental awareness among the employees. The system regularly generates new improvements at all sites, including the Lipovac site, a new environmental warehouse and a new noise barrier that reduced noise by 10 dB, and reconstruction of an underground fuel tank at the Vinkovci site.

**Vupik**, as the last one of our companies certified according to ISO 14001, received a special commendation for its efficient internal audits providing a clear picture of the opportunities for improvement. The EMS immediately accelerated its project for installing water meters at all sites where we have wells. The development of a study required to obtain concessions for water pumping for technological purposes and a water license for all our sites was also accelerated. Following the construction of new farms within Profit Center (PC) Pig Farming (PC Svinjogojstvo) and having implemented modern production technologies and manure disposal methodologies, positive shifts were made in terms of environmental protection. PC Agriculture (PC Ratarstvo) purchased agricultural machinery that causes less pollution, while the application of new agro-technical measures allows us to spend less fuel per hectare. We also put into operation a new transshipping port on the Danube, featuring state-of-theart equipment for environmental protection and a new energy efficient drying kiln. The EMS demonstrated its power in the field on the basis of significant improvements achieved concerning the condition of the environment at all sites, especially in the context of better waste management.

Belje – Its experienced and efficient management system team coordinated the implementation of EMS in Vupik. The related business processes and immediate vicinity of Belje and Vupik allowed us to complete this task in the best possible manner, i.e. autonomously and internally. Belje's experience and complex management system brought about new positive shifts: crude oil was replaced by environmentally accepta-

ble natural gas in the Dairy Factory. In the Darda 1 and Brod Pustara 1 farms within PC Pig Farming, we also switched to natural gas. A new wastewater treatment plant was installed in PC Wine Cellars (PC Vinski podrumi), the new winery, in Kamenac. Following the construction of new farms within PC Pig Farming and having implemented modern production technologies and manure disposal methodologies, we made positive shifts in relation to the environment. The protected area of the Kopački rit Nature Park and some of our activities (agriculture, cow-calf farming, Kormoran Restaurant) within Kopački rit directly and practically show and demonstrate in the best possible manner what sustainable development really is.

Solana Pag put into operation a new boiler room using renewable energy i.e. biomass (wood chips from low-quality, unhealthy or old logs), thus replacing the formerly used and environmentally very dubious crude oil. Logs purchased from Hrvatske šume d.o.o. are cut in accordance with sustainable forest management principles. We aimed to reduce airborne pollutant emissions from stationary sources to a minimum i.e. to satisfy our technological needs for heat from a plant using cheaper and environmentally more acceptable fuel. The most important environmental aspect was thus eliminated.

**Jamnica** – Its management system team receives extraordinary support from and communicates well with the Management Board, thus ensuring positive annual shifts. Our natural mineral water Jana received a CarbonFree® certificate, thus becoming the first product in the region to be awarded such a certificate. The CarbonFree® certificate is an authentic and transparent method of demonstrating the initiative to reduce greenhouse gas emissions throughout product lifecycle. In early 2012, Jamnica put into operation a newly built wastewater treatment plant. In 2013, we recorded a significant reduction in the amount of substances in wastewater below the legally prescribed thresholds. We significantly improved our waste management activities and thus achieved economic benefits.

**Sarajevski Kiseljak** identified waste management as the most important environmental aspect and then proceeded to improve the situation at all its locations through specific projects. The amounts of municipal waste were reduced by improving our collection of specific types of waste. We procured numerous new containers and ensured areas for more efficient and selective waste collection. After the model Eco-Corner in Jamnica, Sarajevski kiseljak also built an Eco-Corner, a special structure for systematic collection, sorting and temporary disposal of all types of waste.

Mladina laid the foundations for the implementation of a food safety system for its wine bottling plant at Mladina d.d. and the Goda spring water bottling plant in cooperation with the Jamnica team. Particular areas were designated for collecting different types of hazardous waste. We ensured disposal of waste tractor tires and dedicated attention to proper disposal of all types of waste resulting from winegrowing and winemaking activities. We also provided designated areas for mixing protective agents in the field (vineyards) to prevent environmental pollution.

**Fonyodi** also improved its waste management system by improving the process of sorting different types of waste and procuring new containers.

Nova sloga began to implement its EMS after successful certification of its HACCP systems in both plants. The mutual synergy of knowledge and assistance among Agrokor companies (Frikom, Jamnica) is demonstrated in this case as well. Optimization of the technological process at the Refrigeration plant and the Mivela plant resulted in significant savings, while electricity consumption in both plants was reduced through the installation of compensation cells.

**Ledo Zagreb** continued to improve its technological processes and implement effective programs aimed at reducing energy consumption. We undertook special measures to reduce our consumption of raw materials and packaging. We continued to reduce our water consumption, as well as managed to reduce our electricity and steam consumption per product unit. Refrigerant R-22 was replaced by the environmentally acceptable refrigerant R-404a. We optimized our transport routes and thus reduced our fuel consumption, and we installed an ammonia absorbing system in case of leakage.



Jamnica's natural spring water, Jana, has been awarded CarbonFree® certificate and became the first product in the region to be awarded this certification.



In cooperation with Henkel, Konzum Croatia launched the "Together for our Clean, Blue Sea" project that will culminate in 2014 when part of the Kaštela Bay will be cleaned for the purpose of raising public awareness of the pollution of the Adriatic Sea.



Konzum supported the "Let's do it – a Million Seedlings in 1 Day" initiative, a major volunteer effort of planting trees in Bosnia and Herzegovina.

Irida began to reconstruct, expand and equip its wastewater treatment plant in 2012. The plant was put into operation in 2013, which significantly improved wastewater quality. In addition, we implemented the most important environmental programs related to reducing electricity consumption, water consumption and waste generation.

Ledo BiH has an excellently organized EMS enjoying extraordinary support from the Management Board and ensuring exceptional communication. The solid foundations allow new improvements to be introduced into the EMS system, ensure full optimization of costs and use of raw materials and energy: reduced water and energy consumption in production compared to the preceding period, improved waste management, more safety in ammonia handling and better fire protection.

Frikom established a better waste management control system placing special emphasis on safer hazardous waste management. We also undertook activities to better control our water and steam consumption, reduced our consumption of water and energy, and provided greater safety in case of potential accidents. Each technical task involved reducing adverse environmental impacts, which resulted in a high-quality integrated management system.

**Zvijezda** also worked intensively on optimizing its energy and natural resource consumption and rational use of raw materials. Special care was taken to ensure elimination of toxic and hazardous materials wherever possible by replacing such materials with those less harmful to the environment and human health. We worked on optimizing the operation of our new wastewater treatment plant by evaluating and selecting new suppliers of chemicals (flocculants and coagulants). The plant operates with full capacity and achieves good results, i.e. it reduces the input parameters by 80%.

**Dijamant** completed its preparations for the construction of a wastewater pumping station for the Oil Mill in late 2013. The wastewater treatment plant in the Oil Mill was reconstructed, which allowed us to collect additional grease from wastewater, process it, and possibly sell it as energy for biogas plants. We continued to undertake our activi-

ties to reduce the amounts of municipal waste. We also continued to work on obtaining an IPPC license. This included activities related to wastewater and preparation of documentation demonstrating integrated environmental protection required to obtain the license.

Sojara Zadar, as an entity subject to the IPPC Directive, has already obtained an IPPC authorization in late 2012. The existing sewerage system within the factory was geodetically surveyed and a bid was received for the conversion of the existing combined sewerage system into a dividing system and its connection to the future public sewerage system within the Gaženica port an industrial zone. We cleaned and evacuated our underground hexane tanks.

Konzum Croatia provided professional advisory assistance to the teams of Konzum BiH and Idea (Serbia) concerning EMS implementation, after the company's own system had been certified. Konzum is also the largest buyer of packaging in Croatia that continuously reduces its energy consumption levels by implementing energy efficiency programs. Konzum prints most of its promotional material on recycled paper. Konzum continuously supports environmental projects and, as the largest chain, actively participates in communication with customers. In cooperation with Henkel, Konzum launched the Together for our Clean, Blue Sea (Zajedno za naše čisto, plavo more) project that will culminate in 2014 when part of the Kaštela Bay will be cleaned for the purpose of raising public awareness of the pollution of the Adriatic Sea. It is worth mentioning that Konzum had its OHSAS (occupational health and safety system) system certified in late 2013.

**Konzum BiH** became more involved in reducing adverse environmental impacts (reducing electricity consumption, reducing air emissions, better waste management, installing grease traps, etc.) after implementing its own EMS. Since its retail and wholesale networks are spread across the country including facilities of different sizes, efficient maintenance of the system represents a complex and demanding task. Konzum supported the "Let's Do It - One Million Seedlings in 1 Day" initiative, a major volunteer effort of planting trees in Bosnia and Herzegovina to additionally demonstrate its social responsibility to the local community in which it operates. Konzum's employees volunteered to forest Čavljak, an excursion site near Sarajevo.

Idea Serbia implemented its EMS and thus took a major step forward in the field of security, occupational safety and fire protection (documentation, drills, equipment). EMS implementation also resulted in accelerating our activities aimed at reducing the consumption of water, energy, waste, refrigerants and wastewater. Idea complied with the relevant regulations in all segments, as demonstrated by numerous inspections resulting in no fines imposed.

**Kor Neretva** is demonstrating its longtime efforts ensuring that its products, the environment, energy and water

resource optimization and waste are given the required attention. The first Global GAP established in Croatia has produced good agricultural practice guidelines for responsible natural resource management, protection of natural habitats, maintenance of high hygienic standards during harvest, rational use of fertilizers and pesticides, hazardous waste disposal, etc.

Tisak started repurchasing old paper from individuals at its repurchase stations across Croatia in 2013, thus significantly reducing the amount of waste disposed at landfills and obtaining input for producing new paper. In its efforts to encourage its customers to preserve the environment, Tisak also introduced eco-bags at affordable prices. The company also implemen-

ted projects aimed at electricity saving, replacement of vehicles with environmentally-friendly ones, and disposal of batteries and textile.

Kikindski mlin plans to be certified according to ISO 14001 in 2014, but is already intensively working on optimizing energy and natural resources consumption, rational use of input, monitoring air emissions, and systematic waste management. Management system teams from our companies provided advice to their colleagues from Kikindski mlin during EMS implementation. Dijamant's team provided advice concerning the Serbian legislation, while Belje's team provided advice relating to business processes since Belje also has mills covered by the EMS system.

This is an overview of some of the most important achievements in the field of environmental protection recorded in Agrokor companies. More details are available in each company's report.

Properly established EMS systems create the preconditions for better, quicker and more efficient solving of specific environmental problems. They provide real, mathematically measurable and effective systems as a useful corporate management tool and a navigation tool for new environmental improvements. The management system departments in most Agrokor companies (that include environmental management systems) are centralized and under direct control of the relevant CEO. Such systems have proven to be by far the best in

the context of system efficiency and transparency. We consider our continuing environmental improvements as civilizational achievements in relation to our employees, customers, business partners, contractors, and the entire community.

Agrokor is an active member of the Croatian Business Council for Sustainable Development, the Environmental Protection Association of the Croatian Chamber of Economy, GIU PAK (Economic Interest Grouping for Packaging and Environmental Protection), the Environmental Protection Agency, EKO Ozra, and other institutions. We hosted the Annual General Meeting of the Croatian Business Council for Sustainable Development for the second time, this time at Konzum Academy's premises in March of 2013.

### In this third Sustainability Report prepared by Agrokor, we collected separate information and data for all 19 key environmental performance indicators in 24 companies:

- EN1 Materials used by weight or volume
- EN2 Percentage of materials used that are recycled input materials
- EN3 Direct energy consumption by primary energy source
- EN4 Indirect energy consumption by primary energy source
- EN8 Total water withdrawal by source
- EN11 Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas
- EN12 Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas
- EN16 Total direct and indirect greenhouse gas emissions by weight
- EN17 Other relevant indirect greenhouse gas emissions by weight
- EN19 Emissions of ozone-depleting substances by weight
- EN20 NO, SO, and other significant air emissions by type and weight

- EN21 Total water discharge by quality and destination
- EN22 Total weight of waste by type and disposal method
- EN23 Total number and volume of significant spills
- EN26 Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation
- EN27 Percentage of products sold and their packaging materials that are reclaimed by category
- EN28 Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations
- EN29 Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce
- EN30 Total environmental protection expenditures and investments by type

### **Retail Business Group**

## Konzum d.d.

Konzum is the largest national retail chain employing approximately 12,500 people. Over 650,000 customers shop at more than 700 Konzum stores in retail and wholesale centers on a daily basis. During the reporting period, eight new Super Konzum stores and two new Velpro centers were opened.

Konzum's business operations are based on a kind and professional service and a pleasant shopping experience in retail and wholesale centers, a wide range of products, including store brand products, introduction of innovative services and green technologies, own production of quality products safe for consumption intended for fish packaging facilities as well as meat, fish and gastro departments in the stores, reduction of environmental impacts by attending to the company's fleet as part of its logistic & distribution and wholesale centers and other sources of air emissions, ensuring product and service quality, and care for the environment, which encourages the customers to return.

As the leading entity in the market, Konzum recognized the need to acknowledge specific features of the activities the company is engaged in and ensure harmonization of the same with legal regulations, and has therefore drafted a concept of its Environmental Management Policy supporting its mission to ensure continuing attention to all environmental components within its complex scope of activity. In June 2010, Konzum had its Environmental Management System successfully certified according to the requirements of ISO 14001:2004 and thus became the first retail chain in the Re-

public of Croatia to hold this valuable certificate. The company's Environmental Management System was recertified by Bureau Veritas in 2013.

So far, HACCP system has been certified in all Super Konzum retail stores, in the entire chain of wholesale centers, and has been implemented across the Konzum network. Konzum thus became the only business entity in the region to implement the HACCP system in such a large number of retail and wholesale facilities. In 2013, Konzum began to implement its Food Safety Management System according to the requirements of the international ISO 22000 standard. The system was integrated with the company's Environmental Management System, and a new Food Safety and Environmental Policy was drafted as well.

The objectives set in the preceding reporting period included increasing the number of sites from which useful waste is collected by certified waste collection organizations. In 2012, the number of sites from which biodegradable waste is collected increased by 12% and the number of sites from which metal and glass packaging is collected increased by 15% compared to the preceding period. Changes in warehouse processes reduced the company's consumption of foil for wrapping products in transport by 10% compared to the preceding period.

For purposes of this Report, the data provided include all retail and wholesale facilities, logistic & distribution centers, warehouses and the corporate building.

### **Materials**

### Materials used by weight or volume - kg

Type of material used	2012	2013
Packaging materials	10,880,042	11,974,232
Total	10,880,042	11,974,232

In 2012 and 2013, 11% less reclaimable packaging materials were placed on the market than in the preceding reporting period.

### Percentage of materials used that are recycled input materials

In 2012, recycled polymer materials accounted for 24% of all materials, and 29% in 2013. In the preceding reporting period, the share of recycled polymer material was 9.82% in 2010 and 10.93% in 2011. As regards plastic bags sold in Konzum stores, the share of bags made of recycled material in 2012 was 47%, and 48% in 2013. The share of recycled paper packaging in 2012 increased compared to the preceding reporting period to 0.27%, while its share in 2013 was 0.2% and its share in 2011 was as low as 0.07%. In Konzum stores, recycled paper packaging is offered to customers in the form of paper bags.



### **Energy**

### Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)	Heating oil (GJ)
2012	174,537.25	127,221.60	17,598.82
2013	172,553.10	140,304.80	12,754.93
Total	347,090.35	267,526.40	30,353.75

Konzum's fuel consumption that totaled 347,090.35 GJ includes consumption of diesel fuel used to run 54 electricity generators and energy used for total transport (passenger cars, commercial vehicles and trucks). In 2012, Konzum used 389 transport vehicles that achieved a mileage of 14,873,012 km and consumed 136,485.20 GJ. In 2013, the mentioned vehicles achieved a mileage of 15,872,976 km and used 141,290.28 GJ. The remaining energy was used for the company's passenger cars and freight vehicles - 37,329 GJ in 2012 and 30,696 GJ in 2013. Compared to the preceding period, Konzum recorded an increase of 6% in diesel fuel consumption, which is a consequence of the strengthened central distribution by logistics, which means that goods ordered from our suppliers are delivered to our central warehouses and then delivered in a single shipment after sorting all orders. This logistic method directly reduces the number of individual deliveries to our sales locations.

267,572.4 GJ of energy was used to run 242 of our gas boiler rooms, while a total of 30.353,75 GJ of energy was required to run our heating oil boiler rooms (44 heating oil boiler rooms in 2012 and 39 heating oil boiler rooms in 2013).

A reduction of 30% in heating oil consumption, compared to the preceding reporting period, is a result of the fact that nine boiler rooms have, in the meantime, switched to a different form of heating energy (natural gas), which increased our gas consumption by 13.6% compared to the preceding reporting period.

## Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	801,111.20
2013	831,693.20
Total	1,632,804.40

Our consumption of electricity in 2013 increased compared to 2012 by 3.82% and by 8% compared to 2011 as a result of the expansion of our network of stores. Eight new large Super Konzum stores and two new Velpro centers were opened, while the offer of our existing stores was expanded creating

the need to supply new stoves, displays, chambers, and other equipment.

Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Steam (MWh)
2012	6,031,894.20
2013	5,497,569.70
Total	11,529,463.90

Our consumption of steam for heating purposes in 2013 decreased by 8.86% compared to 2012 as a result of continuing employee training and efficient use of resources. Our newly opened stores have heat meters, so our bills are now consistent with our actual consumption. Our steam consumption was 2.5% greater in 2013 than in 2011.

Konzum launched its first energy efficiency projects a few years ago. We achieved significant savings as a result of the projects implemented during the reporting period. In 2012 and 2013, the boiler room project covered our energy inefficient boiler rooms. As a result, four boiler rooms switched to gas as a cheaper form of energy, while other four boiler rooms were fully reconstructed with more efficient boilers installed. Thus, our heating oil consumption in 2012 and 2013 decreased by 30% compared to the preceding reporting period.

In 2013, six of our truck drivers working in the Logistics Department completed an eco-driving course. This course should result in fuel consumption savings and reduced emissions of harmful gases, provided the drivers follow the instructions received and drive as they were trained. In 2013, we did not monitor the effects of such driver training on fuel consumption, but will analyze the resulting efficiency starting from 2014.

In 2012, we started purchasing cooling displays with closed sliding or rotating doors with minus or plus operating mode and such displays were accepted in 2013 as a standard in Konzum's facilities as an efficient measure of saving electricity for cooling systems. They are now installed in all new stores.

In 2013, our project for installing motion sensors in public garages included six public garages in Super Konzum stores. By installing motion sensors and light switches in 2013, we expect to save up to 40% of electricity in 2014. We will include the related data in our next Report.

Full LED lighting systems were installed in 2013 in two stores, and a partial solution with LED reflectors was installed in two Maxi stores. Savings on electricity and reduced lighting fixture maintenance cost were soon recorded, so LED lighting was adopted as a standard in late 2013, as an energy efficient concept installed in all new stores. In 2014, we plan to install LED lighting and other efficient lighting equipment (fluorescent pipes) in 70 more stores as part of the reconstruction process.

#### Water

#### Total water withdrawal by source (m3)

Year	From a public water supply system	Total amount of all waters withdrawn
2012	374,644.94	374,644.94
2013	372,600.36	372,600.36
Total	747,245.30	747,245.30

Our water consumption was reduced by 0.55% in 2013 compared to 2012. Compared to 2011, our water consumption in 2013 was 3% less. This decrease in water consumption is a result of years of training our employees in how to use water rationally and quickly respond in case of any defect on water supply pipes. Konzum does not use recycled water in its operations.

### **Biodiversity**

Konzum does not own any locations in protected areas or areas of high biodiversity value.

### **Emissions, Effluents and Waste**

### Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Production plants	3,689.3	4,391.9
Fuel for transport	12.53	12.46

Direct emissions of greenhouse gases and other gases are a result of using energy for heating. In 2013, we had 242 gas boiler rooms and 39 heating oil boiler rooms, and in 2012 we had 241 gas boiler rooms and 44 heating oil boiler rooms. Our  $\text{CO}_2$  emissions increased in 2013.  $\text{CO}_2$  emissions from heating devices decreased compared to the preceding reporting period by 15%. In 2012, our indirect air emissions and transport emissions amounted to 12.53 t  $\text{CO}_2$ , and in 2013 they amounted to 12.46 t  $\text{CO}_2$ . Our  $\text{CO}_2$  emissions increased by 28% compared to the preceding reporting period because the preceding report did not include data on air emissions from company vehicles.

During the reporting period, nine of our boiler rooms switched from heating oil to gas. The total number of our gas boiler rooms decreased by 8% compared to the preceding reporting period. The number of our company vehicles in 2012 and 2013 decreased by 14% compared to the preceding reporting period as a result of fleet rationalization.

Konzum's refrigerating equipment uses permitted agents, including R-22. In 2013, the amount of R-22 in our refrigera-

ting equipment was reduced by 21% compared to 2012. The remaining amount of R-22 of 2,851 kg will be removed by the beginning of 2015 in accordance with the applicable regulations.

### Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	$NO_2$	CO
2012	1.64	3.67	0.13
2013	1.50	5.61	0.48
Total	3.14	9.28	0.61

Direct emissions of greenhouse gases and other gases are a result of using energy for heating. Our average decrease in air emissions compared to the preceding reporting period was 13%.

Konzum is not required to obtain a water license for its facilities. All facilities offering food made in deep fat fryers have installed grease and oil separators that are regularly cleaned and the waste generated by them is disposed of in accordance with the applicable regulations. Process wastewater is removed from parking areas by using grease and oil separators. To minimize our impact on waters, we are making impenetrable paved surfaces and are regularly checking that our sewerage systems remain watertight.

#### Waste

### Total weight of waste by type and disposal method - key

Type of waste	Treatment	Collected by	2012	2013
		EkoFlorPlus, Metis, Unija Nova,	9,906.4 t	11,104.45 t
Non-hazardous waste	R4, R13	Hamburger ens, Odvodnja, Čistoća	344,396.0	480,927.4
		Zagreb, UnijaPapir, Jolly JBS	5,557.4 m³	6,452.0 m <sup>3</sup>
Non-hazardous waste	R3, R4, R5, R12	Ciak, Flora VTC	18.9 t	16.9 t
			9,925.42 t	11,121.39 t
Total			344,396.0 I	480,927.4 l
		<del>.</del>	5,557.4 m³	6,452.0 m <sup>3</sup>

Konzum is very committed to finding the best waste disposal solutions. It thus launched a project the purpose of which is to dispose of category 3 by-products by outsourcing this operation in 2013 to Unija Nova. Considering the large territory it covers and impeded collection of all useful categories of waste, Konzum uses its best efforts to collect and dispose of all types of waste. By improving our inventory management systems in stores, warehouses and Velpro centers, we reduce the amount of waste by minimizing decommissioning and breakage. By using reusable plastic containers (RPC), we si-

gnificantly reduce the amount of packaging used to transport products to stores. We have replaced wooden pallets by metal roll containers, thus minimizing the amount of wooden waste generated. By separating and sorting waste on site, we provide the possibility of using packaging waste as input for other companies. The greatest value of the waste sorting process is continuous communication and training at all levels and greater awareness among Konzum employees, which ultimately results in less produced waste.

### **Spills**

In 2013, we recorded a spill of a blend of heating and heavy crude oil from a heating tank at our store in Tršće. We immediately called the certified company IND EKO that specializes in handling incidents, so the spill was immediately stopped by placing barriers and sucking up oil spills. The

polluted area was attended to, cleaned, the sewerage pipe was washed, the soil surrounding the sewerage pipe that had been porous was completely rehabilitated, as was the waterway that some oiled water had spilled into.

### **Products and Services**

Konzum Academy organizes and conducts high-quality training programs, workshops and seminars and enables exchange of experience and information among employees. Its programs are focused on specific business challenges and daily practices. In 2012 and 2013, Konzum Academy organized a special training program for our transport employees and conducted the Efficient Driving School program, which included introduction to vehicle mechanics. The aim was to minimize our energy consumption and our greenhouse gas and noise emissions. For our administration employees, we organized a training program in cooperation with the Faculty of Mechanical Engineering and Naval Architecture on the subject of Refrigerant Management. We continuously provide environmental training opportunities to our employees. In 2012, a total of 432 employees attended 32 environmental training seminars and in 2013, 147 employees attended 13 environmental training seminars.

Konzum launched its projects aimed at maximizing energy efficiency in its processes several years ago. Significant savings were recorded as a result of the projects implemented in 2013 and 2012. Our heating energy savings resulted from switching to cheaper energy and installing more energy efficient boilers. We installed motion sensors and light switches in six public garages within Super Konzum stores, as

specified in the Report. We also installed automated sensors in our sanitary facilities to minimize water consumption in sinks and urinals.

Units of local self-government, city neighborhoods and citizens are involved in all our project activities and investments, which precede the construction and opening of new stores and creation of new jobs, from the very start. In addition to exchanging opinions, openly communicating and interacting, we always reach a consensus regarding our projects, which then become part of the daily life of the relevant community in which our new store is opened.

Konzum also joined our plastic bottle cap collection project organized for the benefit of the Association of Leukemia and Lymphoma Patients. By selling plastic bottle caps, the Association raises funds for expensive medicines used to treat malignant diseases. All collected bottle caps are sent to Zvijezda, and then transported to the Association.

In 2012, we launched the Power of Cleanliness for Clean Energy (Snaga čistoće za čistu energiju) project. A special jury selected 30 kindergartens to be presented with an eco-corner containing the following features a small botanical garden, a wooden train with cars, a wooden inserter of

different shapes, a blackboard on a stand, thin wooden pastel colors, colored paper and an Oblo puzzle, while free solar panel installation was provided for the best rated kindergarten in addition to the eco-corner. In 2013, we launched the Together for our Clean Blue Sea (Zajedno za naše čisto, plavo more) project in cooperation with Henkel. The project will be completed in 2014, and will include an environmental initiative for cleaning part of the Kaštela Bay. This project aims to raise people's awareness of the pollution of the Adriatic Sea and the need to clean the Kaštela Bay.

In 2013, we collected 109,530,349 pieces of packaging, which is 6.4% less than in 2012 and 7.6% less than in 2011. We be-

lieve the decrease in packaging reclaimed from individuals is a result of lower purchasing power.

### Ammount of products sold and their packaging materials that are reclaimed by category

Type of waste	Treatment	2012 (pieces)	2013 (pieces)
Packaging within the refund system	R4, R5	117,079,829	109,560,349
Total		117,079,829	109,560,349

### **Compliance**

The inspections carried out in 2012 and 2013 did not result in any environmental fines or sanctions.

### **Transport**

Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

	Fuel for transport (GJ)	Total CO <sub>2</sub> emission (tons of CO <sub>2</sub> equivalent for fuel)
2012	96,129.53	12.53
2013	104,121.08	12.46
Total	200,250.61	24.99

In 2012, 96.129,53 GJ of diesel fuel was used for transporting purposes, which resulted in the air emission of 12.53 t CO<sub>2</sub>, of which 2.59 t CO<sub>2</sub> by passenger cars (516) and freight vehicles (10), 2.94 t CO<sub>2</sub>, 3.4 t CO and 0.4 t NO by wholesale transport – trucks (220), and 12.53 t CO<sub>2</sub>, 5.9 t CO, and 0.7 t NO by our logistic transport – trucks (169). In 2013, we used a total of 104.121,08 GJ of diesel fuel, which resulted in the air emission of 12.46 t CO<sub>2</sub>, of which 2.18 t CO<sub>2</sub> by passenger cars (418) and freight vehicles (10), 2.7 t CO<sub>2</sub>, 0.6 t CO and 0.07 t NO by wholesale transport - trucks (201), and 7.58 t CO<sub>2</sub>, 6.8 t CO and 0.8 t NO by our logistic transport - trucks (176). This increase in air emissions from our freight vehicles and passenger cars is a result of logistic fleet enlargement and stronger central distribution, which increase the covered mileage.

The costs of waste transport and disposal, utility equipment and rehabilitation of heating and heavy crude oil spills in 2012 and 2013 amounted to HRK 36,197,557.47, and HRK 29,879,845.95 in 2010 and 2011. Our costs of emission management and equipment maintenance in 2012 and 2013 amounted to HRK 1,577,451.47 (measuring air emissions, refrigerating equipment, boiler room and generator maintenance), and HRK 1,465,500 in 2010 and 2011. The costs of cleaning areas and snow in 2012 and 2013 amounted to HRK 7,715,400.72, and HRK 972,424.89 in 2010 and 2011. This significant difference in the costs of cleaning and maintenance of areas and snow cleaning is a result of different weather conditions in the respective analyzed periods. There was little snow in 2010 and 2011, mostly in mountainous regions. The increase in costs in the other years is a result of abundant precipitation and snow. Such higher costs are also a result of more maintenance activities performed in areas that are not used for commercial purposes, but are also owned by Agrokor.

The costs of employee training amounted to HRK 30,150 in 2012 and 2013 (internal training), and HRK 274,819.49 in 2011 and 2012 (training provided by external instructors and seminars).

### **Environmental Protection Investments**

Konzum continues to work intensively on minimizing its energy and water consumption. By using cleaner technologies and ensuring continuing training to all employees, all projects launched aim to minimize our environmental impacts. By the beginning of 2015, we plan to remove all R-22 refrigerants (2,851 kg) from all our refrigerating equipment

in accordance with the applicable regulations. We will also install LED lighting and other energy efficient lighting equipment (fluorescent pipes) in 70 stores during their reconstruction. Also in 2014, 215 of our logistics and wholesale drivers will take a course in eco-driving.

### Planned Activities and main Objectives for 2014 and 2015

Konzum continues to work intensively on minimizing its energy and water consumption. By using cleaner technologies and ensuring continuing training to all employees, all projects launched aim to minimize our environmental impacts. By the beginning of 2015, we plan to remove all R-22 refrigerants (2,851 kg) from all our refrigerating equipment in accordance with the applicable regulations. We will also install LED lighting and other energy efficient lighting equipment (fluorescent pipes) in 70 stores during their reconstruction. Also in 2014, 215 of our logistics and wholesale drivers will take a course in eco-driving.

### **Retail Business Group**

## Konzum d.o.o. Sarajevo

Konzum Sarajevo continues to be the leading retail chain in Bosnia and Herzegovina, employing over 2700 persons. Konzum Sarajevo's scope of business includes its retail and wholesale networks. In 2013, the retail network comprised three formats: 109 Small, 43 Maxi and 10 Super stores, as well as 6 wholesale centers. Konzum Sarajevo builds its success on the basis of constant communication with its customers, identification of customer preferences and continuous adjustment of its business operations to the latest trends. Its advantages, coverage, availability and service and product quality are confirmed by 35 million customers visiting Konzum each year.

In 2012, Konzum Sarajevo confirmed its compliance with the standards of handling environmental factors in its operations and activities by having its environmental management system certified according to ISO 14001:2004. The preceding period was marked by efforts put into ensuring compliance of its business operations with the requirements prescribed by the new environmental and food safety management regulations

As part of its efforts to comply with the relevant environmental requirements, an emphasis was placed on establishing a product packaging database, as we are required as an impor-

ter and producer to invest in the recycling infrastructure on the basis of charges imposed that are equivalent to the amounts of packaging placed on the market of Bosnia and Herzegovina. For the purpose of optimizing our packaging refunds, we focused on separating useful waste at all company's micro-locations, which was achieved by continuous education of our employees and ensuring the required infrastructure. During the reporting period, Konzum Sarajevo worked on creating the preconditions for establishing systems for managing electronic and electric waste that it generated as part of its operations. As far as food safety management is concerned, we focused on establishing good hygienic practices by investing in the necessary equipment and training of our employees directly involved in such activities.

The presentation of our environmental indicators includes information received from the entire system comprising our retail and wholesale networks and the corporate building.

The inputs we use to make products that we place on the market for end customers are products made of ground fresh meat at the Meat and Seafood Department and readymade food at the Gastro Department in each retail facility of Konzum Sarajevo.

### **Materials**

The amount of raw material used by the retail division of Konzum Sarajevo in 2013 increased by 14% compared to 2011 and, analogously to the increase in production, we recorded an increase in our consumption of packaging materials by 18%.

### Materials used by weight or volume - kg

Type of material used	2012	2013
Raw material	1,392,526	1,336,937
Ancillary process materials	0	0
Packaging materials	494,714	511,718
Total	1,887,240	1,848,655

This obvious growth is a result of opening of nine more stores which perform production activities. More packaging units used are a result of different customer habits and purchasing smaller portions. The packaging materials pertain to all types of packaging used in retail for packaging products for end customers.

The input material used to print catalogues is recycled paper (94.5% of recycled material). In 2012, 17,650,000 catalogs were printed on recycled paper and 31,120,000 in 2013. In 2011, we printed 18,400,000 catalogs, which is equivalent to 270,692 t of paper, of which 255,803 t was recycled paper.

The number of catalogues distributed in 2013 increased by 41% compared to the preceding reporting period.

### **Energy**

We use diesel fuel for transport. The fleet comprises passenger cars, light commercial vehicles and freight vehicles.

In 2012, we had 25 freight vehicles. The number of freight vehicles increased to 45 in 2013. Our fleet now has 17 more freight vehicles, 90% of which have a Euro 5 diesel engine. The number of passenger cars and light commercial vehicles varied. The average number was 97 in 2012 and 89 in 2013.

The significant 38% decrease in direct energy consumption in 2012 compared to 2011 is a result of the opening of a Velpro Center in Banja Luka, after which our customers in the Banja Luka region were no longer supplied from our wholesale Velpro Center in Sarajevo and the number of distribution rounds was consequently reduced. The 25% increase in fuel consumption in 2013 compared to 2012 is a result of opening ten more stores.

Compared to the preceding period, we recorded a decrease in fuel consumption by 24% as a result of continuing logistic route optimization, which means we are constantly improving our vehicle volume and capacity management to ensure better utilization of the same.

### Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)	LPG (GJ)
2012	14,567	0	0
2013	18,238	0	0
Total	32,805	0	0

The forms of indirect energy we use are electricity and hot water.

## Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	141,037
2013	150,253
Total	291,290

As an indirect energy product, electricity is used to operate our devices, lighting, cooling and heating systems. In 2012, 78 of our facilities also used electricity for heating. In 2013, the number increased to 83. The number of our facilities using electricity for heating increased by 22% compared to the preceding reporting period. On the basis of such an increase in the number of facilities using electricity for heating (18 facilities), we also recorded an increase in the consumption of this energy source by 14% in 2013 compared to 2011.

## Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Steam/Hot water (GJ)
2012	12,220.30
2013	14,247.01
Total	26,467.31

The hot water and steam used to heat our premises, which are supplied by the owner of the facility leased by Konzum, are produced by the heat of combustion of different types of fuel (extra light heating oil, coal, gas).

The number of facilities that used these types of fuel in 2011 was 22, 21 in 2012, and 23 in 2013. An increase of 25% in 2012 compared to 2011 and 17% in 2013 compared to 2012 is a result of a longer winter period during the reporting period.

Pellets are used as an indirect renewable source of energy in 13 of our facilities. The consumption of pellets may only be expressed in financial terms as the heating service is provided by the owner of the facility. Our consumption increased by 5% compared to the preceding reporting period for the same heated area. Regardless of the longer winter period, this increase in consumption is not substantial because the prices of biofuel (pellets) in the market often change.

It is not possible to express our energy consumption in GJ for the rest of our facilities due to a large number of suppliers, absence of precise information about the amounts of energy used, and a different method of accounting for the energy products delivered.

In 2012, we installed a system of pipe heat exchangers whereby different media deliver energy to each other and heat and cool three facilities. This is why water intended for drinking is heated by using so-called 'waste' energy. Such system was designed and installed in three of our retail facilities during the reporting period. We save 1,000 kW a month at each facility.

In the next period, we expect to conduct three energy audits and are now in the process of collecting the relevant bids. We also selected three stores that will represent all formats included in the retail network owned by Konzum Sarajevo. Heating oil should be replaced by gas in one of those facilities.

Our reduced electricity consumption is a result of redesigning our processes (different tariff group and different voltage network for supply and measuring) and improving our equipment (replacement of meters, installation of reactive power compensators and installation of built-in meters).

#### Water

Water is supplied from the city network, both drinking water and sanitary water.

# Total water withdrawal by source (m³)

Year	From the wells	From a public supply system	Total amount of all waters withdrawn
2012	0	99,729.66	99,729.66
2013	0	97,899.62	97,899.62
Total	0	197,629.28	197,629.28

Our water consumption increased by 36% in 2013 compared to 2011 as a result of new facilities added to our retail and wholesale networks. However, no water source was signifi-

cantly affected by Konzum Sarajevo's activities. We do not have any wastewater recycling system, so we do not use recycled water.

## **Biodiversity**

No locations owned by Konzum Sarajevo are on the property in or adjacent to protected areas and areas of high biodiversity value outside protected areas.

### **Emissions, Effluents and Waste**

# Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Production plants	0	0
Fuel for transport	1.060	1.328
LPG	0	0
CO <sub>2</sub> equivalent	1.060	1.328

This estimate pertains to direct emissions generated by all vehicles in the fleet together, i.e. freight vehicles, light commercial vehicles and passenger cars. We reduced our  $\rm CO_2$  emissions by 23% compared to the preceding reporting pe-

 $\operatorname{riod},$  which is a logical consequence of the above stated fuel consumption reduction.

Considering the size of our network, the number of our employees and the complexity of our commercial activities (a number of lessors and external service providers and suppliers), no information is available about our other indirect air emissions.

As our logistic and distribution processes are the largest contributors to the generation of greenhouse gases, the management of these processes is considered a major initiative that may result in a decrease in energy consumption and amount of emissions. We are committed to improving the management of such processes on a continuous basis.

#### Emissions of ozone depleting substances by weight (kg)

Year	Number of devices using R - 12	Added R - 12	Number of devices using R - 22	Added R - 22
2012	3	0	9	611.40
2013	3	0	8	580

The company has refrigerating equipment using R-12 and R-22. According to the information for 2013, we reduced the amount of added R-22 by 18.5% as a result of replacing the refrigerating device.

This estimate pertains to direct emissions, including all vehicles in the fleet. We reduced our NO and  $CO_2$  emissions by 23% compared to the preceding reporting period as a result of the fuel consumption reduction.

# Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	$NO_2$	СО
2012	-	0.125	1.086
2013	-	0.157	1.359
Total	-	0.282	2.445

#### Wastewater

Konzum Sarajevo discharges its wastewater into the public sewerage network, including mechanical treatment at several retail and wholesale locations. Such mechanical treatment includes decanting large impurities in chamber separators. The quality of wastewater generated through Konzum's activities is not measured as we are presently not required to

perform such measuring under the water protection regulations. The amount of wastewater is identical to the already stated consumption, since only insignificant amounts of water are incorporated in products. Water is used as drinking water and for sanitary purposes.

#### Waste

We selectively collect cardboard and plastic packaging across retail and wholesale networks and temporarily store the same until it is handed over to organizations engaged in waste collection. These types of useful waste are collected at each micro-location. At the regional level, waste collection is organized through a network of organizations engaged in waste collection and each micro-location keeps track of the amounts collected. 12% more cardboard and plastic packaging was collected compared to the preceding reporting period as a result of selecting an organization operating a waste collection network that is able to satisfy the needs of the dispersed sales network of Konzum Sarajevo. Our employees are continuously educated about the importance of effective management of this type of useful waste.

Non-hazardous waste includes small household appliances with identified defects that are consequently written off. As

part of our internal reverse logistic activities, we periodically transport waste from our micro-locations to our regional wholesale warehouses where it is sorted, measured and collected by a certified operator. We did not manage our EE waste in the preceding reporting period, which is why it is impossible to make a comparison.

Hazardous waste includes gas bulbs, which are disposed of in an environmentally acceptable manner after replacement. Gas bulbs used in our retail and wholesale networks are replaced by our maintenance staff. We have a procedure in place defining how waste bulbs are to be adequately disposed of at regional wholesale centers and, if necessary, collected by a certified operator. We did not manage this type of waste during the preceding reporting period.

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	K/F	Alba, Ekosirovina, Grand promet, Zeos	921,324	1,149,097
Hazardous waste	K/F	Kemokop, Zeos	0	437.20
Total			921,324	1,149,534.20

Waste edible vegetable oil generated by the Gastro Departments in our retail stores is non-hazardous waste measured in liters. All our facilities are equipped with drums for

temporary storage of waste oil, which is collected by regional operators. Each micro-location maintains records of the amounts of waste oil collected.

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	K/F	Alba, Mulalić, Ladanušić	2,852	3,150
Hazardous waste	-	-	0	0
Total			2,852	3,150

In 2012 and 2013, we recorded no spill of chemicals, oil or fuel into the ground or any water areas in the case of Konzum Sarajevo.

### **Products and Services**

Grease traps in Gastro Departments are part of the basic initial equipment in our newly opened retail facilities. In 2013, we installed six grease traps. We introduced this practice in 2013, and it is therefore impossible to make a comparison against the preceding reporting period.

Our first training seminars on the subject of environmental management and impacts were conducted in this reporting period. In 2012, we internally trained 415 of our employees, with an emphasis on our contribution to the environment by complying with ISO 14001:2004, and 410 employees in 2013.

According to the new regulations concerning chemicals, each entity should have a person trained in chemicals management. In 2013, we trained one employee for the purpose of obtaining a Chemicals Expert license and will proceed to establish good practices in chemicals management and internally train our employees at our micro-locations.

As recommended by the manufacturers of our freight vehicles, we use a liquid agent to reduce our NO exhaust emissions. The amount of such agent used in 2012 was 2500 liters and 4400 liters in 2013. We did not record the amounts of such liquid reducing agent in the preceding period. We only use diesel fuel that meets the requirements of the Euro 5 standard and lower sulfur content requirements.

### **Compliance**

The inspections carried out in 2012 and 2013 did not result in any fines for environmental violations.

### **Transport**

In 2013, a total of 11,388 GJ of direct energy/diesel fuel was used to run 45 trucks, compared to 18,525.62 GJ used to run 28 trucks in 2011. In 2011, our air emissions from mobile sources (trucks) amounted to 1.351 t  $\rm CO_2/year$ , 1.383 t  $\rm CO/year$ , and 0.165 t  $\rm NO/year$ , and in 2013 we recorded 0.830 t  $\rm CO_2/year$ 

year, 0.850 t CO/year, and 0.101 t NOx/year. The significant decrease of 40% is a result of the fact that our retail stores are now supplied by regional wholesale centers rather than centrally, and our requirements for direct delivery from suppliers on a case-by-case basis.

#### **Environmental Protection Investments**

In 2011, our waste disposal and treatment costs amounted to KM 362,457, compared to KM 474,917.14 recorded in 2013. The 23% increase in the costs of municipal waste disposal is consistent with the increase in the number of our facilities. Our prevention costs for 2013 increased by 15%, to KM 319,025. In 2013, the electrical and electronic waste disposal charge was KM 13,967.18, calculated on the basis of the number of electrical and electronic equipment items placed on the market. The year 2013 was the first year in which such charge was imposed on the company. We paid packaging waste charges in the amount of KM 136,122.09 in 2012

for the purpose of adequately disposing of packaging waste generated by using products made and imported by Konzum Sarajevo. This was also the first year in which such charge was imposed as a result of the adoption of new ordinances. The fee for the use of forests amounted to KM 146,881.71 in 2012 and KM 297,379.91 in 2013. The water charge for 2012 was KM 86,995.75 and KM 86,994.50 for 2013. The costs of environmental and water charges for freight vehicles and passenger cars amounted to KM 7,937 in 2012 and KM 10,439 in 2013. We spent KM 300 on educating our staff in chemicals management.

### Planned Activities and main Objectives for 2014 and 2015

As the company's activities are audited according to the requirements of ISO 14001:2004, it defined clear goals and objectives, including the plans and programs for achieving them for each year. The main objective is to decrease the burden with respect to all elements of the environment. Accordingly, we aim to increase the total amount of useful waste collected by 5% and adequately dispose of other types of waste generated by finding organizations engaged in waste collection. We first need to attend to category 3 materials. In addition to monitoring the generated amounts of hazardous and non-hazardous waste and sorting all types of plastic materials and recycling them through our contractors, we are introducing selective collection of paper and cardboard in the corporate building and Retail and Wholesale administration. In 2014, we intend to establish regular preventive monitoring of our discharge of refrigerants from our Maxi and Super stores and all Velpro Centers, and undertake activities related to chemicals management (create a database of material safety data sheets for all items in the chemicals group that comprise our retail offer). We plan to conduct energy efficiency audits in three of our retail stores and install containers for voluntary disposal of small household appliances (EE waste), batteries and light bulbs by our customers in ten of our retail stores. We plan to install LED lighting in five of our retail stores as well.

# **Retail Business Group**

# Idea d.o.o.

Idea joined The Agrokor Group in 2005. The company is one of the leading retail and wholesale entities in the Republic of Serbia. Idea presently has 185 retail stores and eight wholesale facilities. It operates in compliance with sustainable development principles and records a significant progress in environmental protection improvement. This is particularly reflected in changing the sources of energy used in boiler rooms, purchasing new vehicles with new generation engines, and organized collection of all types of waste resulting from Idea's activities using a network of contractors. Our risks are thereby minimized, and our product and employee safety levels increased.

As regards its objectives set in the preceding reporting period, Idea achieved the following results:

- HACCP system was implemented in each store;
- an environmental protection system was implemented according to ISO 14001:2004 (66 stores were certified by September of 2013);
- wooden packaging was collected, reused for a similar or the same purpose, and remaining wooden packaging waste was provided to contractors in exchange for new pallets; and
- waste batteries were collected from end customers in our Hyper, Super and Maxi stores for a year. However, this initiative did not yield any significant results due to insufficient customer education.

#### **Materials**

The amount of packaging placed on the market depends on the amount of goods imported to the territory of Serbia. Idea pays a charge per ton for the packaging it places on the market as an importer. In the case of products manufactured in Serbia, this charge is paid by the manufacturer. The following amounts refer to imported goods.

In 2013, we used a total of 2,606.92 t of packaging (1,267.74 t of paper packaging, 678.32 t of wooden packaging, 211.1 t of metal packaging, 284.36 t of glass packaging, and 165.40 t of plastic packaging). In 2012, we used a total of 2899.73 t of packaging (1,387 t of paper packaging, 956.71 t of wooden packaging, 236.73 t of metal packaging, 305.61 t of glass packaging, and 13.68 t of plastic packaging). The amount of packaging used increased by 2% compared to the preceding reporting period.

In 2012, Idea placed 55.88 t of recycled shopping bags on the Serbian market. In 2013, the number increased to  $64.99 \, t$  on

the market. The amount of plastic bags placed on the market increased by 12% compared to the preceding reporting period.

#### Materials used by weight or volume - kg

Type of material used	2012	2013
Input	0	0
Ancillary process materials	0	0
Packaging materials	2,899,730	2,597,920
Total	2,899,730	2,597,920

In 2012, the Idea Online Shop began to operate, using 3355 cardboard boxes made of corrugated cardboard. In 2013, Idea used 14,911 such boxes weighing 2982 kg. All its advertising materials are printed (4,000,000 publications a week on average).

### **Energy**

In 2012, gas was used for heating in 20 of our facilities, with a total consumption of 12,659.96 GJ, whereas in 2013 gas was used for heating in 19 facilities, with a total consumption of 12,298.73 GJ, which represents a decrease in consumption of 2.8%. For the purpose of optimizing our gas consumption and reducing our gas emissions, we maintain our boilers and adjust our burners twice a year, at the beginning and at the end of each heating season. We also measure the amounts of our gas emissions.

In 2012, we used 783.70 GJ of heating oil for our boiler rooms, and in 2013 we used 321.52 GJ. Our oil consumption in 2012 and 2013 was 86.66 GJ per year.

Our consumption of diesel fuel in 2012 was 92,252.10 GJ, compared to 78,631.65 GJ in 2013.

The number of our vehicles was reduced from 357 passenger cars and freight vehicles in 2012 to 293 vehicles in 2013. The



decrease in consumption is a result of fleet optimization and implementation of a SkyTrack vehicle tracking system. We installed 122 Sky Track devices and had our freight vehicles routed, which resulted in the same or higher operating efficiency with less vehicles. Idea has less vehicles, lower fuel consumption, and more stores and deliveries. The Sky Track system resulted in the optimization of our routes, which are now automated, as well ensured monitoring of compliance with the same on the part of drivers.

# Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)	LPG (GJ)
2012	92,252.10	12,659.96	0
2013	78,631.65	12,298.73	0
Total	170,883.75	24,958.69	0

In 2013, we used 306,362.12 GJ of electricity, compared to 302,101.11 GJ in 2013.

This represents an increase in electricity consumption of 15.19% compared to 2010, which is a result of opening 50 new facilities. In 2010, Idea had 129 stores, compared to 179 at the end of 2013.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	302,101.11
2013	306,362.12
Total	608,463.23

#### Water

Idea uses water from public water supply system for drinking and sanitary purposes. In 2012, Idea used a total of 192,555  $\rm m^3$  of water, compared to 226,583  $\rm m^3$  in 2013. Our water consumption in  $\rm m^3$  increased in proportion to the number of our facilities. In 2013, Idea recorded an increase in water consumption of 102.57% compared to 2010, when it used a total

of  $111,853.91~\text{m}^3$  of water. One of the problems regarding our water consumption monitoring is that we do not regularly receive our water bills. Some public water supply systems have begun to issue their water bills for a period of two or even four months, which makes our consumption monitoring and optimization very difficult.

#### Total water withdrawal by source (m³)

Year	From the wells	From a public supply system	Total amount of all waters withdrawn
2012	0.00	192,555	192,555
2013	0.00	226,583	226,583
Total	0.00	419,138	419,138

### **Biodiversity**

Idea continues to lease business premises within the Kopaonik National Park. We are referring to the retail store MP 206 Idea Kopaonik at the address of Sunčani vrhovi lok. 3-5, Municipality of Raška. The activities performed in this store

do not have any adverse impacts on the biodiversity of the area. An environmental charge regarding the operation of the mentioned store is paid to the local self-government.

### **Emissions, Effluents and Waste**

Our greenhouse gas emissions result from the combustion of materials to obtain thermal energy for heating. In 2012, we emitted a total of 5,619.85 t  $CO_2$ , 1.15 t CO, 0.000009 t  $SO_2$  and 0.57 t NOx, compared to 5,341.26 t  $CO_2$ , 1.09 t CO, 0.000009 t  $SO_2$  and 0.551 t NOx in 2013.

# Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Production plants	5,612.4	5,335.4
Fuel for transport	6.6	5.6
LPG	0	0
CO <sub>2</sub> equivalent	5,619	5,341

# Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	$NO_2$	CO
2012	9x10 <sup>-6</sup>	0.57	1.15
2013	1x10 <sup>-6</sup>	0.55	1.09
Total	1x10 <sup>-5</sup>	1.12	2.24

Idea does not use R-12 as refrigerant in its refrigerating equipment. In 2012, a total of 213.6 kg of R-22 was present in the system, compared to 108 kg in 2013. In 2013, 22 air conditioners using R-22 were replaced by devices using R-404a. In 2010, the system contained a total of 173.60 kg of such refrigerant, which is 37.8% more than in 2013. The remaining amount is contained in refrigerating units in 15 facilities.

#### Wastewater

Idea has 10 small-format retail stores that discharge their wastewater in septic tanks. The total amount of wastewater withdrawn from septic tanks in 2012 was 96,628  $\rm m^3$ , compared to 96,734  $\rm m^3$  in 2013. In 2010, a total of 4,500  $\rm m^3$  of water was withdrawn, compared to 5,100  $\rm m^3$  in 2011. In 2010 and 2011, Idea did not centrally archive work orders of its service providers and contractors, which may have resulted in computer errors while monitoring these activities. In addition, wastewater management was not clearly defined by law, which may have resulted in different approaches used by our service providers that withdraw such waters.

Idea uses mineral and edible fat separators in its Velpro, Hyper, Super and Maxi stores. Its core business does not

require obtaining water licenses, so we do not measure our wastewater flow rates. Wastewater quality is tested three times a year by the certified laboratory Anahem of Belgrade. Analyses are performed for 22 facilities.

#### Total water discharge

Year	Wastewater (m³)
2012	96,628
2013	96,734
Total	193,362

#### Waste

In 2012, Idea collected 1,589.62 t of solid waste (paper and cardboard packaging waste, category 3 animal-origin waste, electronic and electrical waste) and 4,755 liters of waste (waste edible oil) and handed it over to a certified operator. In 2013, Idea collected 472.26 t and 8,355 pieces of solid waste and 3,617 liters of liquid waste.

In 2012, Idea provided a total of 19.36 t of electronic and electrical waste for recycling purposes, i.e. old IT equipment and electrical devices that could not be returned to suppliers or repaired, which is 60.12% more than in 2013. That same year, Idea provided its cardboard and plastic packaging that could no longer be used and old paper archives from several wholesale centers that belonged to their previous owners for recycling purposes as well.

In 2012, Idea collected 4,755 of waste edible oil, 1,207.37 t of paper packaging waste, 150.34 t of plastic packaging, 212.57 t of category 3 waste, and 19.34 t of EE waste. In 2013, we handed over 3,617 liters of waste edible oil 71.71 t and 8,355 pieces of waste plastic packaging, 171.14 t of paper packaging waste, 221.69 t of category 3 animal-origin waste, and

7.72 t of EE waste to organizations engaged in waste collection for further treatment or disposal.

Wooden packaging and pallets are still used wherever possible or are converted (non-standard fruit pallets are disassembled and components are used to build standard Euro pallets). The employees working in our wholesale centers are responsible for this task. Any remaining wooden packaging waste is given to the poorest people.

No fee is received for handing over wooden packaging waste to certified operators.

Glass is not collected from our Velpro Centers because their activities do not generate this type of waste, while the lessees that made glass packaging terminated their leases because their premises within our Velpro Centers have been converted. No fee is received for glass packaging handed over to certified operators on the territory of the Republic of Serbia

#### Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R	Papir servis, Set reciklaža, Dimničar, Prekon, Napredak	1,456,223.6	490,653
Hazardous waste	D	Set reciklaža	3,450.0	1,861
Total	•••••		1,459,673.6	492,514

No spills of oil, chemicals, fuel or wastewater into the ground or water were recorded in 2012 and 2013.

#### **Products and Services**

Idea uses its best efforts to minimize its consumption of energy resources and water, as well as to collect, sort or reuse its waste or have it recycled. For the purpose of minimizing its emissions from mobile and stationary sources, solid fuels (coal) are being replaced by natural gas and our new vehicles use new generation engines (Euro 5). In 46 of our older facilities, we replaced our refrigerating equipment using R-22 by equipment using R-404a during renovation.

Idea has implemented an environmental system according to the international ISO 14001 standard in all its facilities. In September 2012, the first third of our large-format facilities were certified, a total of 25. A year later, the number of our certified facilities increased to 66.

We conducted a campaign for collecting waste batteries in cooperation with SET Reciklaža and Duracell which lasted for a year, beginning in the second half of 2012. The campaign was accompanied by a funny poster that invited customers to place their used batteries in a specially designed container in the shape of a large battery. The results were way below our expectations because our fellow citizens do not have developed awareness of battery recycling and there are no statutory regulations in place to direct them. Due to additional costs and an increased scope of work in our stores (the containers were used to dispose of municipal waste and similar), the campaign was terminated in mid-2013.

Idea does not buy or collect secondary raw materials from end customers and does not resell them.

## Compliance

In 2012 and 2013, Idea was not fined for non-compliance with any environmental laws.

#### **Transport**

Our diesel fuel consumption in 2012 was 92,252.10 GJ, while the total number of passenger cars and freight vehicles was 357. In 2013, we used 78,631.65 GJ for a total of 297 vehicles.

Our emissions from mobile sources in 2012 were:  $5.99\,t$  of  $CO_2$ ,  $1.25\,t$  of CO,  $0.86\,t$  of NOx, and  $0.009\,t$  of PM, compared to  $5.62\,t$   $CO_2$ ,  $1.16\,t$  CO,  $0.58\,t$  NOx, and  $0.009\,t$  of particles in 2013. Our stationary source emissions in 2013 decreased by 65.5% compared to 2010 when they amounted to  $21.38\,t$ .

Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

Year	Fuel for transport	LPG		Total CO₂ emission
	GJ	GJ	Tons of CO <sub>2</sub> equivalent for fuel	Tons of CO <sub>2</sub> equivalent for LPG
2012	92,252	0	6.6	0
2013	78,631	0	5.6	0
Total	170,883	0	12	0

#### **Environmental Protection Investments**

Our waste disposal costs in 2012 amounted to RSD 35,024,759.01, compared to RSD 51,124,741.35 in 2013. Our waste disposal costs in 2010 amounted to RSD 23,155,812.36, which is 54.7% less than in 2013, but this is a result of a larger number of facilities and lower prices of municipal waste disposal.

We paid RSD 15,775,127 in 2012 and RSD 11,991,669.78 in 2013 for equipment maintenance, emission-related, chimney sweeping, and snow, surface and separator cleaning services. In 2011, we paid RSD 12,568,452.96 for the mentioned services

In 2012, we purchased utility equipment worth RSD 473,000, compared to RSD 532,000 spent for the same purpose in

2013. In 2013, we spent 42.17% less money on purchasing equipment, because we entered into contracts with our service providers, under which they are required to supply us with waste disposal containers.

In 2013, we spent RSD 220,500 on employee environmental training, and in 2012 we spent RSD 467,263 on other environmental costs (special charge for environmental protection and improvement, wastewater quality testing and noise measuring), compared to RSD 1,249,000 spent in 2013.

In 2012, we paid RSD 44,140,398.70 for all packaging placed on the market, compared to RSD 56,674,214 in 2013. Our revenues obtained from selling sorted waste was RSD 9,588,639.69 in 2012 and RSD 6,081,472.65 in 2013.

## Planned Activities and main Objectives for 2014 and 2015

- to complete the ISO 14001 certification for all our facilities by the end of 2014;
- to have our HACCP documentation revised and integrated with our ISO 14001 documentation in order to create a basis for supplements in connection with our ISO 22000 and OHSAS certificates;
- to launch the Idea Academy project in 2014, including theme workshops for educating our employees on different aspects of environmental protection and energy;
- to switch to another contractor for waste collection to reduce our costs of safe destruction of category 3 waste (we are expecting to save two million RSD).
- to increase the revenues from selling secondary raw materials by having all our quantities collected by a single operator.

## **Retail Business Group**

# Tisak d.d.

Tisak is the largest retail chain of newsstands and a leading Croatian distributer of publications, tobacco, prepaid vouchers, telecom start packages and other products.

In 2012 and 2013, Tisak introduced new services in its retail network, such as bill paying, currency exchange, parcel delivery, and selling merchandise for which it is an exclusive agent. In addition to its own retail facilities, Tisak distributes such products to other customers, which makes it unique in the area.

Tisak's kiosks are modern, 21st century kiosks that offer, in addition to a wide range of products, many unique and innovative services at over 1,200 retail locations across Croatia. The Tisak Kiosk thus becomes the first service center in each neighborhood, making its customers' daily lives easier. By continuously investing in business development and designing new and innovative services, Tisak changes the perception of a kiosk as a retail facility, but also the shopping experience, which is now quick, simple, safe and available everywhere.

In August 2012, Tisak moved its corporate building and distribution center to a new modern logistic & distribution center that satisfies all the needs of this leading national distributor of publications, tobacco, prepaid vouchers, telecom start packages and other products. This relocation resulted in

better control of electricity consumption, waste management records and energy rationalization.

Al direkt was merged into Tisak in July 2013 and their vehicles and motorcycles resulted in a significant enlargement of Tisak's fleet.

During the preceding reporting period, we started to replace our old air conditioners at our retail facilities, and replaced 50 of them during 2012 and 2013. Tisak also started to replace its exhaust gas emitting vehicles within its fleet according to environmental standards during the preceding reporting period. 90 vehicles were replaced during the preceding reporting period and a total of 100 vehicles in the 2012-2013 period. Tisak's objective defined in the preceding reporting period was to improve the quality of its waste management activities, so in 2013 we introduced the old paper buying service, thus increasing Tisak's role in raising the environmental awareness among citizens.

In 2013, Tisak joined the Plastic Bottle Caps for Expensive Medicines initiative organized by the Croatian Association of Leukemia and Lymphoma Patients. The project aims to use the money raised by collecting bottle caps to co-fund expensive medicines to treat Association members, but also to discourage our employees from throwing away PET packaging plastic caps.

#### **Materials**

### Materials used by weight or volume - kg

Type of material used	2012	2013
Foil	61,619	62,237
Cardboard packaging	24,632	178,816
Ribbon	33,406	27,970
Paper	48,172	49,783
Total	167,829	318,806

The weight of the materials used in 2012 and 2013 amounted to 486,635 kg, compared to 171,481 kg in 2010 and 2011. The increase recorded in this reporting period is a result of the introduction of the Tisak Parcel service (Tisak paket) in 2013, which led to a significant increase in the volume of cardboard packaging used for the service. In 2013, we decommissioned our ribbon using machines, which is why the amount of this material decreased.

### Packaging materials used for imports - kg

Type of material used	2012	2013
AL - cans	4,171	1,688
Paper/cardboard	112,549	143,698
Wood (wooden pallets)	36,780	76,454
Other polymer materials	41,868	38,245
Total	195,368	260,085

The materials used pertain to imports and are expressed in kg. In 2012 and 2013 the total amount of packaging materials used for imports was 455,453 kg, compared to 189,339 kg used in 2011 and 2012. During the preceding reporting period, retail business, which is Tisak's core business, was not based on imports, so Tisak was not considered a significant importer. In 2012 and 2013, its wholesale activities were developed and its product range consequently expanded, and

Tisak now imports some of its product lines, thus causing an increase in the use of wooden pallets.

In an effort to encourage its customers to preserve the environment, Tisak uses recycled materials in its operations:

 plastic bags made of 100% biodegradable material that does not pollute the environment;

- paper bags made of 100% biodegradable material; and
- · cardboard boxes made of 90% recycled paper.

In 2012 and 2013, Tisak used a total of 13,370 kg of paper and plastic bags. In 2013, Tisak launched its Tisak Parcel service using recycled material boxes. A total of 286,618 were used in 2013.

### **Energy**

Direct energy consumption represents total consumption of energy from primary sources (fuel and natural gas).

# Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)
2012	74,933	6,627
2013	75,145	8,314
Total	150,078	14,941

In 2012 and 2013, our direct energy consumption by primary source was 165,019 GJ, compared to 113,682 GJ in 2010 and 2011. Our fuel consumption increased by 45% compared to the preceding reporting period as a result of extended distribution lines and the merger of A1 direkt in 2013 that enlarged Tisak's fleet. The increase in natural gas consumption is a result of our relocation to a new building including a large logistic & distribution center that uses large amounts of energy.

Indirect energy is energy generated outside Tisak and, as such, supplied outside the company.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Total	23,823
2013	13,390
2012	10,433
Year	Electricity (GJ)

Our electricity consumption recorded during this reporting period was 23,390 GJ, compared to 19,161 GJ in 2010 and 2011, which is an increase of 24%. The increase in electricity consumption was a result of our relocation to a larger corporate building including a logistic & distribution center. Opening of new retail facilities also results in higher electricity consumption.

Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Steam (GJ)
2012	1,230
2013	880
Total	2,110

Our consumption of steam for heating purposes recorded during the reporting period was 2,110 GJ, compared to 3,864 GJ in the preceding reporting period. The decrease of 45% was achieved thanks to the Class C energy certificate awarded to the building, ensuring better insulation and a modern heating system.

Tisak introduced LED lighting at ten of its retail facilities in 2012 and 2013, thus reducing its electricity consumption.

#### Water

As our retail facilities do not use water, no withdrawal from sources is carried out. Our administration and Management Board offices are located in a commercial building not owned by Tisak, so our consumption for 2012 and 2013 may only be

expressed in financial terms. We paid HRK 535,835 during the reporting period. We consequently do not use recycled water and do not discharge any water.

#### **Biodiversity**

Tisak does not have any land owned, leased, managed in protected areas or areas of high biodiversity value, which means that its activities have no impact on any protected areas.

### **Emissions, Effluents and Waste**

# Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Production plants	0.00	0.00
Fuel for transport	1,924	2,331
LPG	0.00	0.00
CO <sub>2</sub> equivalent	1,924	2,331

As the sum of direct and indirect emissions expressed in tons of  $CO_2$  emissions, our total greenhouse gas emissions for the 2012-2013 reporting period were 4,255 t, compared to 3,182 t in the preceding period. This increase resulted from the merger of A1 direkt with Tisak and the consequent fleet enlargement. 68 vehicles and 140 motorcycles were then added to our fleet

# Other relevant indirect greenhouse gas emissions by weight

Year	t CO <sub>2</sub> (freight vehicles and passenger cars, motorcycles)
2012	2,053
2013	2,059
Total	4,112

Other relevant greenhouse gas emissions by weight pertain to our freight vehicles and passenger cars, amounting to 4,112 t for this reporting period, compared to 2,924 t for the preceding reporting period. The increase recorded in this reporting period is a result of the acquisition of A1 direkt, whereby we also acquired all their vehicles and motorcycles.

Tisak has gradually replaced its fleet vehicles by new ones using Euro 5 engines compliant with the relevant environmental standards for exhaust gases. In 2012 and 2013, we replaced 100 vehicles with vehicles using Euro 5 engines. Between 2009 and the end of 2013, we replaced a total of 190 vehicles

Freon is used as refrigerant in our refrigerating equipment (air conditioners). We stopped using R-12 and R-22 and replaced them with environmentally acceptable R-407 and R-410. 50 air conditioners were replaced at our retail facilities in 2012 and 2013. All cooling displays used by Tisak's retail facilities are supplied externally and Tisak insists that they use environmentally acceptable gas.

As a retail chain and distributor, and due to the nature of its business that does not include production or processing, Tisak causes no significant air emissions.

#### Waste

### Total weight of waste by type and disposal method (kg)

Type of waste	Collected by	2012	2013
Hazardous waste	Ciak	480	2,020
Materials unfit for consumption or processing	Ciak	2,480	15,200
Total		2,960	17,220

During the 2010-2011 reporting period, Tisak had a non-hazardous waste disposal contract in place with Zagrebački holding, so our waste disposal activities may only be expressed in financial terms. During the period, we disposed of munici-

pal waste worth HRK 5,759,248. In 2012 and 2013, we disposed of a total of 20,180 kg of waste.

#### Total weight of waste by type and disposal method (t)

Type of waste	Collected by	2012	2013
	Hartmann d.d.	515.77	4,269,94
	Hamburger recycling	487.21	1,520.62
	Unijapapir d.d.		510.92
Paper and cardboard	Vipap Videm	3,363.88	6,280.81
	Slr Steyrermuhl	•••••••••••••••••••••••••••••••••••••••	1,108.98
	Bunzl&Biach gmbh	•••••	366.14
	Waste paper trade	•••••	353.38
Disations also since	Hamburger recycling	21.16	111.14
Plastic packaging	Waste paper trade		16.32
Paper and cardboard	Hamburger recycling	•••••••••••••••••••••••••••••••••••••••	128.62
packaging	Unija papir d.d.	•••••	88.42
Total		5,388.02	14,755.29

#### **Products and Services**

In 2013, Tisak launched its initiative for buying old paper from individuals. There are 36 buying stations across Croatia, where 1956 t of printed material was bought from individuals. As a leading national distributor, Tisak warned about the issue of piling up waste and offered the citizens the possibility of selling old paper for 50 lipa per kilogram. This significantly reduces the amount of waste disposed of at landfills and provides input for the production of new paper. Tisak buys old newspapers, magazines and catalogues. After collecting it, such paper is treated, pressed and baled, so old paper disposed of is sold on the open market to paper processing companies. This business activity of Tisak ensures multiple social benefits, reduces the amount of waste disposed of at landfills, enables using paper as input for the production of new paper, and raises the environmental awareness of individuals. Tisak bought 4515 t of paper from various companies and collected 8079 t of paper from returns. A total of 20,254.45 t of old paper was bought in 2012 and 2013.

An EE waste management charge of HRK 2.25/kg must be paid for imported electrical and electronic equipment. A waste battery management charge of HRK 2.25/kg must be paid for imported batteries. In 2012, we imported a total of 47,342.46 kg of batteries, for which we paid HRK 397,676.66. The total amount of batteries imported in 2013 was 28,694 kg and we paid a total of HRK 241,029.60 for them. A cardboard box for collecting paper to be recycled is installed in front of each office in our corporate building.

Tisak introduced environmental reusable paper bags made of 100% biodegradable material and buys old paper from individuals. In 2013, Tisak bought 14.440 t of old paper.

## **Compliance**

During this reporting period, Tisak was not fined or otherwise sanctioned for non-compliance with any environmental laws or regulations.

## **Transport**

Tisak does not have organized transport of its workforce because its business units are spread across a large area and not all of them are easily accessible. Other environmental impacts of transport pertain to the transport of goods. In the case of Tisak, this relates to the transport and delivery of merchandise and publications to our retail facilities and our customers' wholesale facilities. This information is provided in our oil consumption calculations and our calculation of greenhouse gas emissions resulting from our distribution activities.

# Total environmental protection expenditures and investments by type (additional)

Waste management costs (HRK)	2012	2013
Waste treatment and disposal	10,144.00	60,834.25
Total	10,144.00	60,834.25

#### **Environmental Protection Investments**

Tisak did not have any significant environmental expenditures or investments in the preceding reporting period. The

investments made in the 2012-2013 period amounted to HRK 70,978.25.

### Planned Activities and main Objectives for 2014 and 2015

- textile collection with this initiative, Tisak wishes to emphasize the increasing importance of collecting and recycling waste to minimize our pressure on nature and the environment. We plan to buy 3,136 t of textiles in 2014 and 2015;
- to increase our old paper buying activities by 25%;
- to purchase 145 new vehicles compliant with Euro 6 norm;
- to dispose of batteries in the corporate building in an environmental manner by providing boxes in which our employees may place their old batteries.

# **Oil and Margarine Products**

# Zvijezda d.d.

Zvijezda d.d. began to operate back in 1916 as a factory making pumpkinseed oil and has developed its entire production from oilseeds to final products. Zvijezda is the regional leader in the production of vegetable oil and margarine, mayonnaise and mayonnaise-based delicacies.

Agrokor became its majority shareholder in 1993 and began to invest in the existing and new production lines and technologies. Its present production is based on processing raw oil (sunflower, rape and soy) and other oil-based products. Zvijezda is also developing in the segment of storing and distributing other producers' products under the same temperature regimes.

Zvijezda distributes its own products and brands by using its own network of distribution vehicles through three distribution centers (Osijek, Rijeka and Split), including warehouses for the purpose of rationalizing its distribution costs and times. Its production plants and central finished product warehouses are located at Ulica Marijana Čavića 1, Zagreb, within an industrial zone.

Zvijezda's entire production system includes the following technological units:

- storage of raw materials and finished products;
- · oil refining plant;
- · oil bottling plant; and
- margarine and delicacy production plant.

Important parts of production also include::

- the boiler room generating steam for production purposes: and
- the WWTP a wastewater treatment plant.

Zvijezda's strategic objective is to ensure high quality of its products and its overall operations, which has been attained by conforming to the requirements of ISO 9001:2008. The company satisfies the demands and needs of its customers and ensures product safety based on the HACCP system integrated into our management system. Products, raw materials and production processes are tested in Zvijezda's modernly equipped laboratory and in independent certified food analysis laboratories, in which way we confirm the quality and safety of our products. Zvijezda's business production operations comply with the relevant national regulations, as well as European Union's regulations and standards due to the company's continuing expansion into the European and other markets. Zvijezda holds a Kosher certificate to satisfy specific markets and needs.

Continuing employee training provided at all levels ensures the development of new products and constant improvement of existing ones. Zvijezda has had a positive attitude towards the environment for years and has launched different projects to minimize its environment impacts. Training seminars are conducted for the purpose of raising the environmental awareness of our employees. The implementation and certification of ISO 14001 environmental management system only confirmed our attitude towards the environment and determined our position concerning constant improvements. The areas in which our integrated management systems are used include development, production, storage and distribution of vegetable oils, fats, margarine, additives, mayonnaise and mayonnaise-based delicacies, and storage and distribution of other food products.

The following environmental quality and protection objectives set for this reporting period were timely met:

- we put into operation a new steam boiler in our boiler room; and
- we installed and put into operation the second margarine line for producing all margarines, including a melting plant.

We are dedicated to improving our technological processes and employee education, particularly with respect to environment. Our management systems are improved and upgraded on a continuous basis.

Our products range comprises three brands::

**Zvijezda** - vegetable oil and olive oil, margarine, mayonnaise, salads, dressings, vegetable fats, vegetable ghee, ketchup, gnocchi, tortellini, pickled vegetables

Margo - spreadable margarine

Omegol - oil and margarine spread, snack sticks.

Our business policy and all our development plans and projects incorporate requirements for the protection of the environment and the living and working surroundings as part of sustainable development. Our attitude towards the environment includes our compliance with the applicable regulations of the European Union and the Republic of Croatia and regular monitoring of the same, improvement of our business and technological processes for the purpose of meeting our environmental and quality targets, defining the relevant environmental aspects and impacts and ensuring regular monitoring of the same, and continuing employee training and activities aimed at raising their awareness of the environment by finding sustainable product quality solutions and ensuring compliance with relevant environmental requirements.

During the 2012-2013 period, Zvijezda's production volume decreased by approximately 6% as a result of the difficult market situation and reduced sales of its finished products intended for the consumer market and other food industry.



#### **Materials**

The direct materials used (materials present in the final product) and non-renewable materials (resources not renewed over a short period of time), chemicals and packaging materials are expressed in kg. The weight of all materials used in 2010 and 2011 was 129,377,743 kg, compared to 117,149,439 kg in 2012 and 2013.

### Materials used by weight or volume - kg

Type of material used	2012	2013
Input	57,560,301	46,165,750
Ancillary process materials	773,581	830,537
Packaging materials	6,257,231	5,562,039
Total	64,591,113	52,558,326

During the 2012-2013 reporting period, the amount of materials used per ton of product was roughly the same as in the preceding reporting period, while the decrease in overall production is a result of a decrease in finished product sales due to market disruptions.

By using recycled input packaging materials, we reduce our need for input and contribute to the preservation of resources. Recycled packaging materials are mostly used for secondary/transport packaging (transport boxes made of recycled cardboard) and we also use recycled packaging white glass for some of our packaging. Cardboard boxes and cardboard mats are made of 100% recycled cardboard, glass packaging contains recycled material (white bottles up to 25% and green bottles up to 60%), while our metal twist-off caps contain about 80% recycled material.

### **Energy**

Our total energy consumption at our production locations from primary sources (natural gas, fuel for transport vehicles and passenger cars) represents our direct energy consumption. For our production purposes, we use natural gas and water to run our boiler room that produces steam for our production plants and electricity. At the same location, we have a central warehouse used for storing raw materials and finished products under the required temperature regimes. Electricity is a type of direct energy produced and supplied outside the company. The amounts of direct and indirect energy used for production and transport purposes are presented by the Sales Centers (Rijeka, Split, Osijek) in the table below.

# Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)	Total (GJ)
2012	38,001	129,784	167,785
2013	40,035	128,487	168,522
Total	78,036	258,271	

Our consumption of natural gas for our production plants is mostly equal all year, except in periods before Easter and Christmas when we record increased sales volumes. Our total consumption shows that our consumption was roughly the same in 2012 and 2013. In 2013, we slightly increased our consumption of fuel for transport because of an increased number of products distributed but not produced by Zvijezda.

Our direct energy consumption by primary energy source for 2010-2011 was 274,063 GJ, compared to 258,271 GJ in 2012 and 2013, which is a decrease of 5.8% on an absolute basis. Nevertheless, our energy per ton of product in this reporting period increased by 1% compared to the preceding reporting period as a result of smaller batches, disruptions in supply of raw materials, and decreased sales in the market.

Indirect energy is energy produced outside Zvijezda and supplied outside the company. In this case, it is electricity, because we produce our own thermal and cooling energy.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	45,930
2013	42,254
Total	88,184

Our electricity consumption in 2010 and 2011 amounted to 93,840 GJ, compared to 88,184 GJ in 2012 and 2013. During the 2012-2013 reporting period, our electricity consumption per ton of product increased by 1% compared to the preceding reporting period as a result of smaller batches, disruptions in supply of raw materials, and decreased sales in the market, but decreased by 6% on an absolute basis.

The boiler room produces steam for our production cycle purposes by combusting fuel in a closed system, calculated on the basis of the lower heating value of fuel, which is natural gas in this case.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Steam(GJ)
2012	114,679
2013	104,055
Total	218,734

Our steam production in 2010 and 2011 amounted to 239,718 GJ, compared to 218,734 GJ in 2012 and 2013  $\,$ 

During the 2012-2013 reporting period, our consumption of energy per product unit increased by 6.2% compared to the preceding reporting period. Such indicators result from non-continuous production caused by disruptions in raw material supply and decreased sales of our products in the market.

In 2013, Zvijezda installed a new boiler with a smaller capacity (10 t/h) than the existing boiler in the steam producing boiler room. This boiler uses less energy under the same load, which also results in less emission from combustion. The expected decrease in gas consumption, air emissions and  $\rm CO_2$  equivalent amounts on an annual basis is about 3%. We will not be able to report the actual effects of this investment before the next reporting period.

By constantly improving and efficiently planning our production, we save energy and reduce waste and washing water consumption. Our planning is therefore based on maximizing our batches and adjusting our production to avoid washing between two or more products made on the same line.

As the largest local producer of edible oil and margarine, mayonnaise and mayonnaise-based delicacies, Zvijezda invests in new technologies to retain its leading market position and provide its customers with high-quality, economically more acceptable products. In February 2013, we completed our investment projects of installing and putting into operation the second margarine line including a margarine melting and emulsifying system. Such project allows us to make new products of standardized quality, enlarge our product range, use less energy, reduce margarine waste, and increase our production efficiency.

All our production companies are involved in the projects implemented at the level of the Group related to transport and distribution rationalization. We are working on integrating products that require the same temperature regimes and have the same characteristics, and utilizing our overall distribution capacities. We thus save fuel and reduce exhaust gases. Such projects and initiatives have just been launched, so it will not be possible to analyze and report their effects before the next reporting period.

#### Water

As a food production company subject to food and process hygiene requirements, Zvijezda uses substantial amounts of water. However, our systematic approach to water management used since 2011 has resulted in a significant decrease in water consumption in our facilities. Zvijezda uses two sources of water: water from the public water supply system and

well water (for which we hold a concession). Water is used to make steam, as input, for cooling in production processes, for washing production lines, and as drinking and sanitary water. Water used in our sales centers is public water used as sanitary water, drinking water and water for washing our warehouses.

### Total water withdrawal by source (m3)

Year	Water from the public water supply system	Well water used for process purposes	Water in Sales Centers	Total amount of all waters withdrawn
2012	45,841	82,405	807	129,053
2013	42,694	79,474	431	122,326
Total	88,535	161,879	1,238	251,379

In 2010 and 2011, we used a total of 280,439 m³ of water, 116,057 m⁵ of which was water from the public water supply system and 164,382 m³ was water from our own wells. During the 2012-2013 reporting period, our total water consumption was 251,379 m³, 89,773 m³ was water from the public water supply system, and 161,879 m³ was well water. It is clear that we reduced the total amount of all waters withdrawn during this reporting period and that water from the public water supply system is being replaced by well water wherever our technological processes allow it.

Zvijezda has been rationalizing its water consumption for years and has performed recirculation whenever possible. The new lines and technologies that we purchase practically already contain closed water systems (the new refinery), which keeps our water consumption at a sustainable level. This is best supported by the fact that we used approximately 2,500 m $^3$  of water in 2007, and our water consumption in 2013 was reduced to 400 m $^3$ .

### **Biodiversity**

The facilities owned or leased by Zvijezda, which the company uses to conduct its operations, are not within or adjacent to any protected areas or areas of high biodiversity value. The company's production facilities, corporate building, warehouse for finished products and raw materials, and its

Sales Center Zagreb are located within the Žitnjak industrial zone. Our Sales Centers in Osijek, Split and Rijeka are also located within industrial zones. Zvijezda therefore has no significant impact on biodiversity.

### **Emissions, Effluents and Waste**

Natural gas is used in the company's boiler rooms as the primary fuel and diesel powered trucks are used to supply the market. Emissions are regularly monitored in accordance with the national regulations and our direct greenhouse gas emissions include the combustion of natural gas and diesel fuel used by our freight vehicles. To calculate the CO<sub>3</sub> equivalent, we use the methodology specified in the Guide for Developing Production Plant Greenhouse Gas Emission Monitoring Plan issued by the Ministry of Environmental Protection, Physical Planning and Construction according to the following formula:

 $CO_2$  (emissions from combustion) = consumption\*combustion size\*emission factor\*oxidation factor

# Total direct and indirect greenhouse gas emissions by weight- key

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Production plants	6,719	6,652
Fuel for transport	2,265	2,449
CO <sub>2</sub> equivalent	8,984	9,101

As the sum of direct and indirect emissions expressed in tons of  $CO_2$  emissions, our total greenhouse gas emissions were 18,344 t in the 2010/2011 reporting period, compared to 18,085 t in the 2012-2013 reporting period. The levels of emissions for both reporting periods are clearly equal.

Other relevant indirect greenhouse gas emissions in Zvijezda presented in this Report pertain to emissions resulting from transporting members of our workforce to and from work and business trips using passenger cars.

# Other relevant indirect greenhouse gas emissions by weight

Year	t CO <sub>2</sub>
2012	548.6
2013	489.6
Total	1,038.2

The amounts of  $CO_2$  emissions were determined by estimating our  $CO_2$  emissions from combustion as defined in Appendix A (Air Emissions) to the Environmental Pollution Registry Maintenance Manual. Other relevant indirect green-

house gas emissions by weight amounted to  $1038.2\,t$  in this reporting period, compared to  $1,120.7\,t$  tons in  $2010\,a$  and  $2011.\,$  Our emissions were reduced by 7.4% because we use less passenger cars.

Zvijezda had already (during the preceding reporting period) switched from diesel fuel to natural gas in its boiler room, as natural gas is more environmentally acceptable. We are still working on reducing our greenhouse gas emissions. Installation of a new steam boiler of a smaller capacity in the boiler room and systematic adjustment of combustion on the burners have contributed to the above-mentioned reduction efforts.

According to the Ozone Depleting Substances and Fluorinated Greenhouse Gases Regulation (Official Gazette 92/12), Zvijezda listed all its refrigerating systems, substances and amounts and reported them to the Ministry of Environmental Protection. We outsource the maintenance of our refrigerating equipment to certified organizations, as required by law. All our refrigerants are legal and the refrigerant used by the air conditioners in the corporate building is HCFC 22 (R 22), which will be replaced by an acceptable refrigerant by 2016.

According to the Regulation on the Limits of Pollutant Emissions from Stationary Sources (Official Gazette 117/12) and the Ordinance on the Monitoring Pollutant Air Emissions from Stationary Sources (Official Gazette 129/12), Zvijezda measures its pollutant air emissions according to the required schedule. The boiler used in the company's boiler room is a medium heating device in terms of its thermal power and the type of fuel it uses. Emissions from the boiler in the boiler room are measured once a year and, in the case of smaller heating locations, measuring is performed every two years. The results show that we are within the ELs (Emission Limits). The results show that comparisons to GVE are within the allowed limits (Regulation on the Limits of Pollutant Emissions from Stationary Sources – the EL Regulation).

A certified organization measured our NO and CO emissions during May of 2012 and our emission concentrations for 2013 were determined on the basis of a calculation.

# Total direct and indirect greenhouse gas emissions by weight (in tons)

$NO_2$	CO
7.4	0.04
6.0	0.37
13.4	0.41
	7.4 6.0

#### Wastewater

After the completion of the major project, i.e. installing a wastewater treatment plant (WWTP), all process wastewater is treated by the plant. During the construction of the plant, we reconstructed and expanded our sewerage system. We separated our sewerage systems for sanitary and precipitation waters. The WWTP's operating technology is based on physical and chemical treatment of wastewater, namely acid water, where the contents of sulfates, greasy water, oil, grease, BOD and COD are reduced. After treatment, all waters are discharged through an inspection & measuring shaft (IMS) into the public sewerage system, and then directed to the city wastewater treatment plant.

The total amount of discharged water is determined on the basis of the amount of water supplied from the water supply system and water withdrawn from wells less 5% on account of water incorporated in products and losses in cooling towers. In the 2010-2011 reporting period, we discharged a

total of 266,417  $\ensuremath{\text{m}^{3}}$  of water, compared to 237,634  $\ensuremath{\text{m}^{3}}$  in 2012 and 2013.

In early 2013, Zvijezda obtained a new water license for a term of five years, subject to all terms and conditions of the Wastewater Emission Limits Ordinance (Official Gazette 80/13). The quality of our treated process wastewater is checked according to the schedule required by the water license by the certified laboratory Andrija Štampar.

#### **Total water discharge**

Year	Wastewater (m³)
2012	121,834
2013	115,800
Total	237,634

Waste
Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R	Eko flor, Tisak, Zumal, Zg Holding, Gumipex, Sava promet, Roto trans, Eko mirin, Food Technologies	895,585	891,861
Hazardous waste	D	Kemis Termoclean, Kemokop, M San Eko	16,672	13,464
Total		•••••••••••••••••••••••••••••••••••••••	912,257	905,325

The waste is sorted at the point of its generation, separately collected and temporarily stored in an area designated for temporary storage of different types of waste. A better waste sorting system increases the amount of non-hazardous waste, which is sold to certified operators as secondary raw material. During the reporting period, Zvijezda disposed of 1,787 t of non-hazardous waste and 30 t of hazardous waste. The amount of hazardous waste disposed of increased substantially compared to the preceding reporting period because we

disassembled our hydrogenation plant that ceased to operate and rehabilitated all equipment containing dangerous substances (waste).

Our waste management plan and continuing employee training and supervision resulted in a better waste sorting system and an increase in the key waste figures by type of waste within the relevant period.

#### **Products and Services**

Dangerous chemicals (substances harmful to health and the environment) used in Zvijezda are supervised and warnings and instructions for first aid in case of an accident are visibly displayed. Our employees handling dangerous chemicals are under constant medical supervision and are included in our training cycles for handling dangerous chemicals. Our amounts of dangerous chemicals are below the limit set for dangerous substances in the Regulation for the Prevention of Major Accidents Involving Dangerous Substances. All our plants have lists of dangerous chemicals used in addition to all material safety data sheets, water licenses and instructions for proper handling. In case of an accident, Zvijezda has defined the alerting method, responsible persons and environment rehabilitation method. During this reporting period, Zvijezda did not record any spill of dangerous substances that

may have an adverse impact on human health or the environment.

Special attention is dedicated to the issue of waste, because quick and efficient waste disposal significantly affects our attitude towards the environment. For the purpose of optimizing (reducing) our waste costs and reducing combined packaging waste, we sort waste that may be separated and handed over for recycling as secondary raw material, thus reducing our waste disposal costs. This relates to polymer ribbons used to tie cardboard boxes shipped to Zvijezda by our suppliers and extracting polymer bottle caps. We found a company that collects such waste in addition to other polymer waste free of charge, while our collection of bottle caps is of a charity nature because they are handed over to the

Association of Lymphoma Patients that sell such waste to raise money to buy expensive medicines.

Our wastewater treatment plant produces costs like any other technological unit and we continuously undertake measures to reduce our wastewater treatment costs and increase the efficiency of our treatment activities. We optimize the operation of our wastewater treatment plant (WWTP) by testing and introducing new chemicals (flocculants and coagulants).

The projects for the procurement and installation of our second margarine line included reconstruction and capacity enlargement of our melting plant. The melting plant is used to melt and temper certain raw materials (lecithin) in margarine production. When switching from one product to another, the line needs to be cleaned of the previous product remaining in its pipelines. These amounts of product are melted in the melting plant and returned to the production of the same product as a certain percentage of it, thus reducing the amount of waste to be disposed of. In addition, such margarine is registered in the Ministry of Agriculture in the Registry of Animal Food Facilities and may be used as input for other purposes (as a supplement to animal food).

Zvijezda products are packaged in primary (contact) packaging, secondary (transport) packaging, and tertiary packaging. Most of our products are sold in retail stores, where

secondary and tertiary packaging (cardboard boxes, stretch foil) are collected, properly sorted and handed over to certified waste management organizations. Most of our transport boxes are recycled and used to make new ones that are purchased from our suppliers for the next production cycle. Wooden pallets represent reusable packaging that circulates until its condition requires its disposal.

As regards our primary packaging used for margarine, oil, mayonnaise, sauces and salads, our consumers dispose of it as municipal waste after the end of its lifecycle because there is no system in place for collecting and disposing of greased packaging. It is only in such cases in which Zvijezda products are sold as input to industries that waste is properly collected by type and disposed of by such industries as required by law. Zvijezda handles packaging waste received from its supplier in the same way.

According to the Sustainable Waste Management Act (Official Gazette 94/13) and the Packaging and Packaging Waste Ordinance (Official Gazette 97/05; 115/05; 81/08; 31/09; 156/09; 38/10; 10/11; 81/11; 126/11; 38/13; and 86/13), Zvijezda pays a waste disposal charge according to the type of consumption material for the purpose of covering its costs of disposing of packaging waste as a manufacturer that places its products on the market in such packaging.

## Compliance

Zvijezda has an established process of keeping up to date with regulations and notifying its responsible persons in each process or activity. In addition, Zvijezda is under constant supervision by certifying organizations for compliance with the requirements of each standard within its management system. In addition to internal audits, the system is

constantly audited according to plans or onsite by visiting plants and identifying any irregularities or non-conformities. In addition to all third party audits, internal audits and customer audits, inspections are also conducted. There were no significant violations or cases of regulatory non-compliance or fines during the reporting period.

## **Transport**

Zvijezda impacts the environment by transporting goods using its own vehicles and by transporting members of its workforce to and from their respective workplaces.

During this reporting period, Zvijezda used  $78,036~\mathrm{GJ}$  of energy for transporting products and other goods and materials and members of its workforce, which resulted in greenhouse gas emissions of  $5,753~\mathrm{tons}$  of  $\mathrm{CO_2}$  equivalent, compared to  $60,310~\mathrm{GJ}$  of energy used and  $5,277~\mathrm{tons}$  of  $\mathrm{CO_2}$  equivalent of greenhouse gas emissions generated during the 2010-2011 reporting period. This increase in our greenhouse gas emissions is a result of an increase in the distribution segment during the reporting period.

Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

	Fuel for transport (GJ)	Total CO <sub>2</sub> emission (tons of CO <sub>2</sub> equivalent for fuel)
2012	38,001	2,814
2013	40,035	2,939
Total	78,036	5,753

#### **Environmental Protection Investments**

Zvijezda systematically manages its costs incurred in all phases of its activity, especially its waste costs. We managed to reduce our waste costs because we separated several more

types of plastic packaging during this reporting period, which no longer ends up in combined packaging waste or landfills. During the 2012-2013 reporting period, our environ-

mental protection investments and expenditures amounted to HRK 5,980,543 and included the following costs:

- waste disposal;
- packaging and packaging waste disposal charge (Environmental Protection and Energy Efficiency Fund);
- emission measuring and charge for air emissions from stationary sources;
- · cleaning sewerage and separators;

- WWTP operation;
- · management system certification and training;
- investments in environmental protection.

These costs were much lower than in the preceding reporting period because at that time they included the cost of building a wastewater treatment plant.

## Planned Activities and main Objectives for 2014 and 2015

We began to implement our Pallet Management and Monitoring project. Our annual cost of purchasing new or used pallets is very high and we intend to reduce it by 30-50%. As part of this target, we will:

- develop a procedure and standard for collecting pallets from customers;
- find a possibility for repairing damaged pallets;
- establish a procedure for recording Euro pallets, i.e. actual number in real time and financial charges imposed on the customers;
- · monitor all pallets entering Zvijezda.
- Our warehouse for raw materials, input and finished products is cooled in seven different temperature zones. We will perform an analysis of the possibility to raise the temperature in certain temperature zones by a few degrees to save an estimated 3-5% on electricity.
- provide employee education in all segments of environmental protection on a continuous basis.

# **Oil and Margarine Products**

# Dijamant A.D.

Dijamant A.D. is an oil, vegetable fat, margarine and mayonnaise producing company headquartered in Zrenjanin and conducting its business within The Agrokor Group since 2005. Having operated and developed as part of the Group, Dijamant became one of the largest processors of oilseeds and vegetable fat producers in this part of Southeast Europe. The Report provides information for 2012 and 2013 pertaining to the factory site. It presents Dijamant's business indicators demonstrating its commitment to environmental protection. It is reflected in reduced pollution, proper waste management, direct investments in equipment and processes generating less noise, processes designed to prevent leakage, etc. Dijamant has two independent wastewater treatment plants because its process wastewater pipeline systems are also separated. In addition to process wastewater, precipitation wastewater is treated using gravitational grease separators before being discharged into the Bega River.

In 2012, we decided to abandon the IFS standard and replace it by certification according to the FSSC 22000 standard, which is recognized by the GFSI (Global Food Safety Initiative) and acceptable for the retail chains from the European Union operating in Serbia (Delhaize Group, Metro, etc.). In 2013, Dijamant successfully had its existing standards recertified: ISO 9001:2008, ISO14001:2004, GMP+, FSSC22000, HACCP, and HALAL. As regards our other planned objectives, we achieved the following during the reporting period:

- We installed grease traps (gravitational separators) for precipitation wastewater treatment and are currently implementing them.
- In late 2013, we started building a pumping station for wastewater generated by the Oil Mill plant and expect to complete it in the spring of 2014. We are preparing an environmental impact study for the purpose of obtaining an

- occupation permit, after which we will start preparing the documentation for obtaining a water license.
- Dijamant had intended to obtain a license for treating waste oil from deep fat fryers. These activities were abandoned in 2012 because the amounts of waste oil in Serbia are insignificant and it was impossible to separate our waste oil treatment activities from regular production in a feasible manner.
- We introduced separation of paper from municipal waste in our offices. Paper is collected and handed over for disposal separately.
- The chemicals we purchase and use are reported to and registered in the Registry of Chemicals. Our material safety data sheets (MSDS) are updated as necessary and we separately monitor solid and liquid chemicals. In addition, we maintain records of chemicals and biocides in circulation. Whenever possible, we purchase chemicals in reusable packaging.
- We are still working on the eco-indicator issue because we
  did not ensure measuring of all parameters by production
  line. In other words, some parameters are measured on the
  level of each plant and then converted for specific products
  or processes (electricity consumption, water consumption).
  The planned study in connection with defining eco-indicators has not been completed yet.
- We reduced our amounts of municipal waste by increasing
  the share of secondary raw materials extracted from it. We
  also trained our employees. The factory circle is regularly
  toured and our employees are warned about waste handling. The amounts of waste for each plant are determined
  by estimation and expressed by volume. Immediately before selling waste as secondary raw material, we precisely
  determine its amount. The material extracted from municipal waste and presently sold is polypropylene (waste
  packaging).

#### **Materials**

The amounts of input and other materials used are consistent with our sales plans. The increase in our consumption of raw materials was mostly affected by the amount of soy and sunflower seed bought, and the amounts bought depend on the market prices and the amounts of inventory from the preceding year. In addition to the packaging materials described in the table, in 2012 we used 36,463 pallets, compared to 46,590 used in 2013.

#### Materials used by weight or volume - kg

Type of material used	2012	2013
Raw material	167,584,963	196,226,039
Ancillary process materials	1,060,979	1,026,644
Packaging materials	3,530,213	3,593,179
Total	172,176,155	200,845,862



The amount of materials used in this reporting period (373,022.017 tons) was much higher than in the preceding reporting period (136,598.47 tons) as a result of more sunflower and soy seed bought and increased production of mayonnaise and related products.

Dijamant does not use any input or ancillary materials made of recycled materials in its production processes. As regards the input used, only a small percentage of secondary packaging (cardboard boxes and mats) contains recycled paper.

### **Energy**

Dijamant uses natural gas and sunflower shell to generate steam and uses diesel fuel to power its vehicles:

# Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Diesel fuel (GJ)	Natural gas (GJ)	LPG (GJ)
2012	37,172.72	217,308.81	0
2013	36,481.91	185,351.14	0
Total	347,090.35	267,526.40	30,353.75

In 2012 and 2013, our consumption of energy obtained from natural gas (402,659.95 GJ) was reduced compared to the preceding reporting period (468,244.37 GJ). As we increased our sunflower seed purchase quantities, the process generated more shell used as energy instead of gas. At the same time, our consumption of energy obtained from diesel fuel (73,654.63 GJ) did not change significantly compared to the preceding reporting period (71,154.04 GJ).

# Direct energy consumption by primary energy source (renewable energy sources)

Year	Sunflower shell (GJ)
2012	219,319
2013	218,400
Total	437,719

The energy obtained by sunflower shell combustion (437,719 GJ) also remained at the same level as in the preceding reporting period (446,677 GJ).

The amount of energy used for production remained stable. The differences in the amounts of sunflower shell and gas used are associated with the qualities of these materials (the moisture content in shell affects the amount of energy obtained).

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	108,313.05
2013	99,237.34
Total	207,550.39

Our electricity consumption in this period (207,550.39 GJ) remained roughly the same as in the preceding reporting period (201,089.39 GJ).

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Total	793,488
2013	378,808
2012	414,680
tear	Steam (GJ)

Ctoom (C I)

We reduced our steam consumption (793,488 GJ) compared to the preceding reporting period (866,713 GJ), as a result of repairing parts of the equipment where steam was lost.

#### Water

#### Total water withdrawal by source (m³)

Year	From own wells	From a public water supply system	Total amount of all waters withdrawn
2012	302,363	175,784	478,147
2013	418,260	161,709	579,969
Total	720,623	337,493	1,058,116

During the reporting period, we reduced the total amount of water used (1.058,116~GJ) compared to the preceding reporting period (1.295,643~GJ). This decrease is a result of im-

proved water management (less spills) and repaired leakage points on equipment.

## **Biodiversity**

The area in which buildings and plants owned by Dijamant are located does not have the status of a protected natural habitat and is not adjacent to any areas where Dijamant's operations may endanger biodiversity. According to the general plan of the Zrenjanin Municipality, the location in whi-

ch Dijamant operates is intended for production plants not endangering the environment. This is also indicated in the above-mentioned Environmental Impact Study relating to the Dijamant's plant.

### **Emissions, Effluents and Waste**

# Total direct and indirect greenhouse gas emissions by weight

2.150.70	00,000,05
	36,969.05 <b>36,969.05</b>
	3,159.72 3, <b>159.72</b>

The amount of greenhouse gas emissions (80,128.77 t) slightly increased compared to the preceding reporting period (76,617.86 t). As we reduced our gas and shell consumption (energy), this is a result of improved boiler operation and more efficient combustion (less ash is generated).

#### CO<sub>2</sub> emissions resulting from the combustion of fuel in passenger cars (in kg)

Year	Gasoline	Diesel fuel	Gas	Total
2012	79.27	87.63	39.015	205.915
2013	121.71	153.79	105.06	380.56
Total	200.98	241.42	144.075	586.475

We did not record these parameters in the preceding reporting period, so we are unable to make a comparison.

Dijamant uses the following ozone depleting substances:

### Emissions of ozone depleting substances (kg)

Year	R12 refrigerant	R134a refrigerant	R22 refrigerant	R404 refrigerant	R407C refrigerant	Total
2012	13	-	-	39	26	78
2013	•	26	13	91	13	143
Total	13	26	13	130	39	221

We did not record these parameters in the preceding reporting period.

# Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	$NO_2$	CO
2012	0.00	53.59	18.99
2013	0.00	39.15	6.36
Total	0.00	92.74	25.35

The amount of our CO emissions (25.35 tons) was reduced compared to the preceding reporting period (39.44 tons), which also demonstrates improved operation of our boilers (better combustion). The amount of nitrogen oxides (92.74 tons) was reduced compared to the preceding reporting period (167.14 tons) also because we improved the combustion process in our boilers. Sulfur oxides were only detected in 2010 as a result of more domestic gas used, which was not purified like imported gas.

#### Wastewater

#### Total water discharge

Year	Wastewater (m³)
2012	401,544
2013	397,475
Total	799,019

During this reporting period, we recorded less water discharge (799,019  $\rm m^3$ ) compared to the preceding reporting period (856,679  $\rm m^3$ ), which correlates to the amount of water used.

# Quality of wastewater from the VeFa plant after treatment

2013
.9 °C
wish
ined
urbid
ml/l
mg/l
7.92

# Quality of wastewater from the Oil Mill plant after treatment

	2012	2013
Water temperature	33.2 °C	28.8 °C
Color	Light yellowish	Light yellowish
Odor	Weak (sunflower)	Herbal
Transparency	Partially transparent	Turbid
Depositing after 30 minutes	1 ml/l	< 0.1 ml/l
Dried unfiltered residue	3,201 mg/l	1,877 mg/l
Dried filtered residue	3,125 mg/l	1,827 mg/l
Suspended substances	75.6 mg/l	50.5 mg/l
COD (from K2Cr2O7)	2,461 mg/l	523 mg/l
BOD <sub>5</sub>	441 mg/l	172.29 mg/l
Fats and oil	38 mg/l	2.25 mg/l
рН	7.2	7.05

Fats and oil are removed more efficiently, which resulted in better COD and  $BOD_5$  values. Both treatment plants use identical coagulants and flocculants.

# Quality of precipitation wastewater discharge into the Begej River

2012	2013
17.5 °C	-
tamnosiva	-
neodređen	-
neprozirna	-
20.3 ml/l	-
832 mg/l	-
668 mg/l	-
164 mg/l	-
568 mg/l	-
379 mg/l	-
27 mg/l	-
7.53	-
	17.5 °C tamnosiva neodređen neprozirna 20.3 ml/l 832 mg/l 668 mg/l 164 mg/l 568 mg/l 379 mg/l 27 mg/l

Our precipitation drainage system is mostly exposed to environmental impacts (the amount of organic substances flowing into it). In 2013, no precipitation water analysis was performed in the presence of inspectors because the year was quite dry.

#### Waste

We recorded an increase in the amount of non-hazardous waste during the reporting period. This is a result of better separation of waste materials, which in turn resulted in more secondary raw material. This decrease in the amount of ha-

zardous waste is not relevant because the amount recorded in 2012 was affected by our regular replacement of batteries in all vehicles and forklift trucks.

#### Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013	Total
Non-hazardous waste	R/D	JKP, Eko unija, Centar za rec. Zvezda. Rvač Jugo-impex	892,450	992,190	1,884,640
Hazardous waste	R	Rvač	7,900	2,220	10,120,
Total			900,350	994,410	1,894,760

During this reporting period, we reduced the amount of hazardous waste (10,125 kg) compared to the preceding reporting period (35,490 kg) because, according to the new classification, nickel was pronounced non-hazardous (we reduced our nickel content in waste). We also recorded a decrease in the amount of non-hazardous waste: in this period we colle-

cted 1,884,640 kg of waste compared to 2,378,420 kg in the preceding reporting period because we then disposed of a certain amount of waste that had been generating for years.

We did not record any significant spills of chemicals, fats or fuel.

#### **Products and Services**

In 2013, we completed the preparatory phase for the installation of a pumping station for the Oil Mill plant. The pumping station was selected as the only technical concept enabling the mounting of a system for measuring the amounts of water discharged into the public water supply system on the existing structure of sewerage pipes. By the end of 2013, we prepared all designs and licenses, so our works began in December. We are still required to prepare an environmental

impact study and conduct wastewater measuring which is a precondition for obtaining a water license.

Concerning the handover of packaging waste placed on the market, in 2013 Dijamant cooperated with the certified packaging waste operator Ekostarpak, meeting the national targets for the year.

### Compliance

No fines or any other sanctions were imposed for non-compliance with any environmental regulations. No complaints were received from individuals or any associations regarding Dijamant's operations in connection with environmental pollution.

No complaints from individuals or labor inspectors were received in the preceding year regarding Dijamant's operations in connection with environmental regulations.

## **Transport**

Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

Fuel for transport (GJ)		Total CO <sub>2</sub> emission (tons of CO <sub>2</sub> equivalent for fuel)
2012	31,410.9	2.28
2013	30,827.2	2.23
Total	62,238.1	4.51

Total  $CO_2$  emissions (4.51 tons) recorded in the period 2012-2013 did not significantly change compared to the preceding reporting period (4.36 tons).

#### **Environmental Protection Investments**

#### Protection expenditures and investments by type

Costs in RSD	2012	2013
Waste treatment and disposal	7,494,598.48	6,818,985.04
	000 000 00	520,000 (struja)
Emission treatment (electrostatic filter operation)	669,000.00	2,435,000 (remont)
Water from the public water supply system	10,370,748.00	10,181,915.61
Wastewater discharged into the city collector	18,203,355.00	19,089,752.61
Water domain utilization charge	135,638.25	106,582.96
Drainage charge	69,312.21	73,124.52
Drained water charge	1,451,111.53	1,411,477.35
Charge for using water structures and wastewater drainage systems	12,364,680.00	11,352,228.24
Institute services (mandatory environmental parameter monitoring)	1,339,671.30	657,907
Fee payable to the packaging waste operator	3,114,235.34	2,829,590.32
Environmental pollution charge	361,253.74	1,713,825.94
Environmental protection and improvement charge	13,006,189.26	16,218,479.26
Total	68,579,793.11	73,408,868.85

Our waste treatment and disposal expenses were slightly reduced (RSD 14,313,583.52) compared to the preceding reporting period (RSD15,197,707.15), mostly as a result of the market prices of secondary raw materials. As a result of our overhaul costs, the emission treatment/electrostatic filter operation costs (RSD 3,624,000) slightly increased compared to the preceding reporting period (RSD 1,335,000). The costs

of Institute services/mandatory environmental parameter monitoring (RSD 1,997,578.3) decreased significantly compared to the preceding reporting period (RSD 5,151,874.08). This is due to the fact that we performed an efficiency testing of our wastewater treatment plant in the duration of one month. The remaining items are not comparable because costs are classified in a different way.

### Planned Activities and main Objectives for 2014 and 2015

- 1. To obtain a water license (complete the missing environmental impact studies, obtain the rest of the requirements from Vode Vojvodine);
- 2. To continue to work on obtaining an integrated environmental license (BAT analysis and plans for meeting the defined parameters);
- 3. To define production eco-indicators, i.e. prepare a study on the basis of which it will be possible to assign the environmental protection costs more clearly to specific types of product and product scope;
- 4. To additionally improve our waste separation by type, subject, however, to economic feasibility; and
- 5. To plant trees around Dijamant's facilities.

# **Oil and Margarine Products**

# Sojara d.d.

Sojara Zadar is a factory engaged in the processing of soybeans, both domestic and imported, for the purpose of producing soybean meal, soybean oil and lecithin. The factory has a processing capacity of up to 1,100 tons a day. Sojara is the only soybean processing plant in the region. Thanks to its location in the Port of Zadar and its closeness to railway and road routes, Sojara has a large number of possibilities for transporting oilseeds and all kinds of crops, as well as for storing and handling goods in its silos and under-floor warehouses. These possibilities are increased by the fact that the company owns a transshipment deck within port facilities, which is able to receive even the largest freight ships. Our silo for storing oilseeds, crops and flour, with a capacity of 38,000 m<sup>3</sup>, increases our possibilities concerning the imports and exports of goods.

Sojara Zadar started its production activities in 1977. In 1991, Sojara became part of The Agrokor Group, thus establishing better cooperation with companies such as Belje, Zvijezda, etc. In late 2013, Sojara changed its legal status from a joint-stock company to a limited liability company.

Sojara is particularly committed to quality control, environmental protection and product safety. It reduces its adverse environmental impacts by constantly training its employees and optimizing its energy and natural resource consumption. In 2001, Sojara was certified according to the ISO 9001:2008 quality management standard. The most recent recertification was carried out in 2012, while audits are conducted every year. In 2010, we had our environmental management system certified according to ISO 14001:2004, while audits are also carried out every year. Our ISO 14001 was last recertified in 2013. Sojara also holds a Kosher certificate and has implemented an HACCP system. Sojara is subject to the IPPC Directive and the Kyoto Protocol.

In 2012, Sojara only used part of its processing capacities and no processing activities were undertaken in 2013. In 2013, Agrokor trgovina, which has been supplying Sojara with raw material since the beginning of its operation within The Agrokor Group, failed to import soybeans. It purchased only a small quantity of soybeans of domestic origin, but failed to extract it. Sojara was therefore left with no raw material to process, which is why no processing activities were undertaken in 2013.

The objectives planned for this reporting period (to reduce crude oil consumption, to improve our waste management system, to provide a designated waste disposal area, to reduce greenhouse gas emissions and emissions in wastewater) were not met:

- 1. The planned reduction of crude oil consumption was not successful as our processing activities lasted for a very short period of time and the shorter the processing, the greater the crude oil consumption. Our processing activities were performed only in the period from November 6-30, 2012 and our crude oil consumption per measurement unit was 33.1 kg per ton of processed soybean, while our planned consumption was less than 33 kg per ton of soybean.
- 2. As a result of insufficient funds and poor financial performance, we failed to build the planned awning at the diesel fuel station for our internal transport vehicles.
- 5. For the same reason, we failed to provide a designated waste disposal area, i.e. we failed to pave it and connect it to the water supply, electricity supply and fire alarm systems this is presently unimproved land where we dispose of solid waste to be collected. If we were to improve this area, it would be easier to mark and maintain it.
- 4. As we did not undertake any production activities, we reduced our emissions, but this does not constitute the fulfillment of the objective set.

#### **Materials**

In 2012 and 2013, we recorded a significant decrease in the amount of processed raw material. In 2012, our processing activities were reduced by approximately 300% compared to the preceding year and no processing activities were undertaken in 2013.

Recycled input materials cannot be used in Sojara production processes because of the nature of the company's operations.

#### Materials used by weight or volume - kg

Type of material used	2012	2013
Raw material	20,181,250 x 10 <sup>3</sup>	0
Ancillary process materials	680,649 x 10 <sup>3</sup>	340
Packaging materials	-	-
Total	20,861,899 x 10 <sup>3</sup>	340



### **Energy**

# Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)	LPG (GJ)
2012	668,000	-	-
2013	0	-	-
Total	668,000	-	-

In 2012, we recorded a decrease in crude oil consumption by approximately 28% compared to our crude oil consumption in the preceding period. This is due to the fact that our processing volume was reduced in 2012 and in 2013 no soybean processing activities were performed at all.

We recorded a decrease in our electricity consumption by about 75% in 2012 and 2013 compared to 2010 and 2011, which is a direct result of the reduction in soybean processing and operation of our terminal for storing and transporting crops.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)	Steam (GJ)
2012	5.77	23,130
2013	2.2	0
Total	7.97	23,130

Because of our high financial expenses for heating oil used by our boiler room, we launched an initiative to switch to using biomass. This would reduce our energy costs by about four or five times. It would also reduce and improve the quality of our air emissions. We developed a concept for converting our boiler room to burn biomass. We prepared all the necessary parts of the project, including building, architectural, electronic and other designs. In order to obtain approval of the main project design, we must obtain consent of the final versions of separate parts of the project. We also submitted an application for a location permit for our boiler room.

#### Water

### Total water withdrawal by source (m³)

Year	From wells	For process purposes	From a public water supply system	Total amount of all waters withdrawn
2012	-	3,176	4,036	4,036
2013	-	0.00	251	251
Total	-	3,176	4,287	4,287

In the 2012-2013 reporting period, our water consumption was significantly reduced compared to the preceding repor-

ting period, due to the production volume and closing of the company restaurant in 2013.  $\,$ 

### **Biodiversity**

Sojara Zadar does not own, lease or manage land in protected areas and none of our activities are undertaken in such areas,

so we are not responsible for impact on biodiversity in protected areas.

### **Emissions, Effluents and Waste**

# Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO₂ eq.)	2012	2013
Production plants	2,086.11	0
Fuel for transport	-	-
LPG	-	-
CO <sub>2</sub> equivalent	2,086.11	0

The amount of carbon dioxide emissions directly depends on the duration of boiler room operation, how well the designated parameters (air amount, fuel amount, burner operation, etc.) are adjusted, and whether or not our boiler room operates without interruption. In 2012, we recorded a decrease in our carbon dioxide emissions by approximately 28% compared to the 2010-2011 period as a result of reduced production volumes and the fact that soybeans were not processed in 2013, so there were no emissions relative to such activities.

Sojara does not have any information that we could use to determine our indirect  $CO_2$  emissions from vehicles used by our employees to travel to and from work and the company does not have any vehicles used for business trips (other than the director's car).

Sojara does not use any ozone depleting substances in its production processes. Its fire extinguishing systems contain 499.5 kg of halon. Our plans to replace halon by FM 200 will be fulfilled as soon as we are financially able to do so.

The amounts of sulfur oxide and nitrogen emissions directly depend on the duration of boiler room operation and the quality of the fuel used. In 2012, we recorded a decrease in sulfur oxide emissions by approximately 30% and in nitrogen

emissions by about 28% compared to our average consumption recorded in 2010 and 2011 as a result of reduced processing volumes. Replacing the fuel we presently use by natural gas or biomass would significantly improve the quality of our air emissions. We are currently considering our available options and intend to find new energy for Sojara.

# Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	$NO_2$	CO
2012	30,489	7,270	0.144
2013	0	0	0
Total	30,489	7,270	0.144

#### **Wastewater**

#### Total water discharge

Year	Wastewater (m³)
2012	3,175.90
2013	0
Total	3,175.90

The wastewater generated by Sojara is still discharged into our internal sewerage system consisting of three separate drainage systems connected by a longitudinal deposit tank (precipitation and oil drainage) through a common collector and drainage well into a common discharge channel and further into the sea. These systems comprise a fecal sewerage system (septic tanks), a precipitation drainage system and an oil drainage system. The mean values of our wastewater

indicators indicate inconsistence of parameters (COD,  $BOD_5$ ) in relation to the parameters set in the Environmental License. This problem may be solved by connecting to the common wastewater treatment plant in the Port of Gaženica, which is under construction and is expected to be put in operation in 2016. The suspended production at Sojara contributes to the reduction of the wastewater burden.

Our total water discharge into the sea (Category 1 – High-Quality Sea) was  $122.15~\text{m}^3$ /day during our processing activities in 2012 and we had no discharge into the sea other than precipitation in 2013. In 2012, we recorded a decrease in our process water discharge into the sea by approximately 400% compared to the preceding reporting period as a result of reduced production volumes and we discharged no process water into the sea in 2013.

Waste
Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R	CeZaR, Čistoća-Zadar	119,996	31,680
Hazardous waste	D	Ciak	328	31
Total			120,324	37,711

In 2012, we recorded a significant decrease in our waste amounts by approximately 6% compared to the preceding reporting period. As our production was suspended in 2013, we recorded a clear decrease in the amounts of hazardous and non-hazardous waste compared to 2010 and 2011. No spills were recorded during the reporting period.

In 2010, we made an assessment of the situation, based on which proposals were prepared for using the best available technology (BAT) for the purpose of protecting the environment. That same year, we prepared a study on how our present plant should be aligned with the provisions of the Environmental Protection Act in accordance with the Regulation on the Procedure to Determine Integrated Environmen-

tal Protection Requirements (Official Gazette 114/08). On November 30, 2012, Sojara received an Integrated Environmental Protection Requirements Authorization (so-called Environmental License). The Conformity Study defined the dates by which non-conformities under the Environmental License must be rectified. Our Environmental License was issued for a period of five years and expires on November 30, 2017.

As Sojara only produces soybean oil and input for cattle feed in its plants, which are delivered by tanker trucks, trucks or railway cars, there is no possibility of returning our products, which means there is no possibility of reclaiming packaging materials.

### **Compliance**

No fines or any other sanctions were imposed during the reporting period for non-compliance with any regulations and no actions were taken using dispute resolution mechanisms.

## **Transport**

Sojara does not distribute its products, does not use any passenger cars, and does not organize transport for its workforce members, so it has no significant environmental impacts in this context.

### **Environmental Protection Investments**

# Total environmental protection expenditures and investments by type

	2012	2013		
Costs of waste disposal, emissions treatment and rehabilitation in HRK				
Waste treatment and disposal	219,972.26	212,149.96		
Emissions treatment	4,014.50	0		
Expenditures for obtaining and using emission certificates	0	0		
Total	223,986.76	212,149.96		
Environmental prevention and management costs in HRK				
External environmental management services	0	0		
Environmental management system certification	11,685.21	24,180.32		
Total	11,685.21	24,180.32		
Total costs	235,671.97	236,330.28		

Our costs of waste disposal, emissions treatment and rehabilitation were reduced by 4% during the reporting period compared to the preceding reporting period because these costs are mostly fixed and determined at the level of the city or county (e.g. municipal waste transport, etc.). Our prevention and environmental management costs were reduced by 58% in this reporting period compared to the preceding reporting period.

### Planned Activities and main Objectives for 2014 and 2015

For the purpose of further improving our environmental protection system, our plans for the next period are:

- 1. To improve our waste management system by continuously training all our employees on the need to sort municipal and other waste, purchase more containers for each type of waste and improve our bulky waste depository;
- 2. To provide a hazardous waste disposal area; and
- 3. To reduce our wastewater emissions and our direct impact on the recipient (the sea) by connecting to the common wastewater treatment plant in the Port of Gaženica as soon as it becomes available.

## **Water and Drinks**

# Jamnica d.d.

Jamnica is the largest Croatian producer of mineral water, juices, nectars and refreshing beverages with a tradition of over 190 years. It operates as part of The Agrokor Group. Jamnica owns production plants in three locations: the Jamnica Plant, the Jana Plant producing mineral water and refreshing soft drinks, and the Juicy Plant producing fruit juices. In addition to these three production plants, it covers four sales regions and operates 11 sales centers, and its own distribution companies in Slovenia, Serbia and the USA.

Jamnica has set and systematically upgrades its primary business goal, i.e. to meet the demands and expectations of its customers in compliance with the environmental protection and sustainable development principles in all its business structures. For the purpose of improving the environmental quality and protection in all its activities and across the organization, Jamnica has integrated a quality management system, a food safety management system and an environmental management system into a single management system.

On the basis of the certificates we hold, Jamnica is considered one of the producers of safe and high-quality products with warranty. Jamnica has been certified according to ISO 9001:2008, ISO 14001:2004, HACCP, a Kosher Certificate and a CarbonFree® Certificate have been obtained for Jana natural mineral water, and Jana was included in the Directory of Sanitarily Approved Food Establishments for Armed Forces Procurement and in the NSF list for International Bottled Water – FDA Regulations, and has been certified in all 50 states

All our objectives set for this reporting period were met: we put in operation our wastewater treatment facilities within the Jamnica Plant, we improved our technological processes, we completed our planned employee training program, and our business management system was upgraded.

According to our training plan, we conducted employee training in environmental protection according to ISO 14001:2004

(autonomous and chemical technicians, line workers, supervisors and employees of the Administration Department) and trained our employees for working with dangerous chemicals. We also held the Refrigerant Management seminar in 2012, attended by our fleet workshop employees.

The environmental management policy pursued by Jamnica did not change during this reporting period. It prescribes the general objectives as guidelines for setting specific environmental protection targets.

Such specific environmental protection targets are intended to prevent environmental pollution and are measurable, attainable and defined in accordance with the relevant statutory and other requirements aimed at achieving lasting improvements.

We fulfilled our objectives in terms of achieving savings (with respect to the use of energy, water and materials), including the procurement of a mobile generator and satellites for stationary washing of loaders for the Jamnica Plant, repair of leakage on process water pipelines, and procurement of a cooling generator for the Jana Plant. Furthermore, the objectives set according to the indicators for the output categories of environmental aspects were met, including the repair of the old wastewater treatment plant for the purpose of protecting the new plant during interventions and reconstruction of the fuel supply plant for the purpose of preventing fuel spills.

In late 2013, Jamnica and Stanić Grupa entered into an agreement for the acquisition of the Juicy fruit juice product line. Based on this agreement, Stanić Grupa became a new owner of the juice bottling plant in Jastrebarsko and the Juicy, TO, Juicy Fruits, Juicy Kids and Juicy Vita brands.

In cooperation with the Croatian Cleaner Production Center and UNIDO's consultants from Austria, Jamnica launched its Low Carbon Technologies project, which will be completed in mid-2014.

### **Materials**

Direct materials (materials present in the final product), non-renewable materials (resources that are not renewed over a short period of time), chemicals and packaging material used are expressed in kg.

The weight of all materials used in 2010 and 2011 was 1,497,481,479 kg, compared to 1,445,967,093 kg in 2012 and 2013



#### Materials used by weight or volume - kg

Type of material used	2012	2013
Raw material	753,807,392	647,982,774
Ancillary process materials	4,218,713	3,904,728
Packaging materials	20,769,017	17,847,664
Total	778,795,122	669,735,166

During the 2012-2013 reporting period, our consumption of materials per product unit was roughly the same as in the preceding reporting period.

To reduce its need for input and contribute to resource preservation, Jamnica uses the following recycled materials to package its products in secondary and tertiary packaging:

- cardboard boxes and cardboard mats are made of 100% recycled cardboard;
- glass packaging contains recycled material white bottles up to 25% and green bottles up to 60%;
- paper labels intended for each product group (Ginger, Gineta, Jana 5 L) contain up to 40% recycled material;
- metal twist-off bottle caps contain approximately 80% recycled material;
- · handles are made of 93%-100% unsorted recycled paper; and
- crates are made of 80% HDPE regenerated material.

## **Energy**

Direct energy consumption represents our total consumption of energy from primary sources (fuel, natural gas, liquefied petroleum gas – LPG). Our fuel consumption depends on the type of product, type of packaging, and product volume and category.

# Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)	LPG (GJ)
2012	116,010	5,155	12,563
2013	108,570	5,399	12,793
Total	224,580	10,554	25,356

Total fuel consumption required by our production plants was roughly at the same level during the relevant years, although our production increased. By investing in new production lines and optimizing the operation of our plants, we use our best efforts to reduce our fuel consumption per product unit or keep it at the same level.

Our direct energy consumption by primary energy source was 209,776 GJ in 2010 and 2011 compared to 224,580 GJ in 2012 and 2013. Our energy consumption per product unit increased by 2.2% compared to the preceding reporting period.

During the reporting period, the Jamnica Plant recorded a decrease in fuel consumption as a result of its new work organization structure. On the other hand, in our production of soft drinks we use more fuel because of additional needs for line preparation, as well as syrup and finished product pasteurization. Fuel consumption of the Jana Plant depends on the operation of its aseptic line. The share of production on aseptic lines is higher, which results in more fuel used to produce steam. As a result of its production planning optimization, including longer batches, the Juicy Plant reduced its fuel consumption and produced greater quantities. Please note that our measurements of fuel consumption for production and for heating purposes are not physically separated, so any variations in consumption may result from weather conditions.

In its warehousing operations, Jamnica uses forklift trucks powered by LPG (liquefied petroleum gas) and environmentally acceptable electric forklift trucks for its indoor activities. Our consumption of LPG depends on our logistic processes and finished product and input handling. As an alternative fuel, LPG generates less greenhouse gas emissions than other fossil fuels, its combustion is clean, it has a high octane number, is environmental acceptable and used in reusable gas bottles of 10 kg. Using electric forklift trucks reduces our fuel costs. In addition, they make less noise and improve the air quality in the warehouse.

Natural gas is used in PC Zagreb for heating, so its consumption depends on weather conditions.

Indirect energy is energy produced outside Jamnica and supplied outside the company. In Jamnica, this refers to electricity since we produce thermal energy by ourselves.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Iotal	155,429
Total	155,429
2013	74,304
2012	81,125
Year	Electricity (GJ)

Our electricity consumption in 2010 and 2011 was 139,947 GJ, compared to 155,429 GJ in 2012 and 2013.

During the 2012-2013 reporting period, our electricity consumption per product unit increased by 5.27% compared to the preceding reporting period. Our electricity consumption depends on our product range (juice, water) and the packaging used for such products. The increase in electricity consumption at the Juicy Plant is a result of installing a new sparkling wine line at Mladina.

Our production plants use fuel combustion to independently generate steam in a closed system, which is calculated on the basis of the lower heating value of fuel.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Steam (MWh)
2012	120,462
2013	112,736
Total	233,198

In 2010 and 2011, we produced 217,605 GJ of steam, compared to 233,197 GJ in 2012 and 2013.

During the 2012-2013 reporting period, our energy consumption per product unit increased by 2.2% compared to the preceding reporting period. Our steam consumption is closely related to our fuel consumption, so any variations in steam consumption are interpreted in the same way as in fuel consumption.

In 2013, we purchased a new PET line for the Jamnica production plant. The investment included decommissioning of the old L5 line and installation of a new, more modern Krones line, which will take place in 2014. This project will result in

technological process improvements, which will in turn provide energy savings.

To retain its leading market position, in late 2013 Jamnica launched its project for the modernization and improvement of its PET packaging bottling processes. The project includes converting to a new bottle design with lower preform weight and short-neck design (PCO 1881 thread) in Jamnica production plant for the L6 production line (natural mineral water and soft drinks bottled in 1.5 L bottles) and the L7 production line (natural mineral water and soft drinks bottled in 0.5 and 0.75 L bottles). The project is expected to reduce our consumption of PET materials and energy, thus also minimizing our environmental impacts.

We will also reduce our energy needs by utilizing waste energy (waste air from the blower on the new L5 line and L6 line) to heat our storage areas during the winter period.

By converting to new bottle design with lower preform weight, Jamnica indirectly reduces the amount of energy used by our preform suppliers. Such suppliers will use 7%-10% less energy to make the same amount of preforms of lower weight (4 grams per preform) and will thus save substantial amounts of energy used to heat such preforms.

#### Water

Jamnica uses an integrated approach to water management. Water used by the company includes water from own sources, process water and water from a public water supply system.

As an essential resource, water is managed rationally. Water is subjected to continuous quality audits and we monitor how much water is used and how.

#### Total water withdrawal by source (m<sup>3</sup>)

Year	From wells	For process purposes	From a public water supply system	Total amount of all waters withdrawn
2012	368,048	206,076	174,034	748,158
2013	340,036	156,627	149,085	645,748
Total	708,084	362,703	323,119	1,393,906

The total amount of water used in 2010 and 2011 was 1,342,183 m³, 1,046,088 m³ of which was water withdrawn (own sources for production and process purposes), and 296,095 m³ was water from a public water supply system. During the 2012-2013 reporting period, the total amount of water used was 1,393,906 m³, 1,070,787 m³ of which was water withdrawn (own sources for production and process purposes), and 323,119 m³ was water from a public water supply system.

In 2012, we reconstructed the pipeline suspension to prevent major damage to equipment, provide for safety of our production workers and save water, and replaced damaged process water pipelines at the Jana Plant. Our water consumption at the Jana Plant depends on the product range, so our water consumption increased as a result of greater juice bottling volumes on the aseptic lines. In 2013, we completed production process modifications at the Juicy Plant, thus providing for significant savings in water consumption. Furthermore,

in Q3 2013 Mladina installed a sparkling wine bottling line within the Juicy Plant, which resulted in increased water consumption.

As one of the largest producers of mineral water and soft drinks, Jamnica withdraws water from the water system for its operations. To prevent excessive withdrawal or potential contamination of sources, Jamnica developed an Environmental Impact Study that identifies, describes and assesses our environmental impacts and determines the possible direct and indirect impacts of the project on water, soil, air, flora and fauna, geological heritage, landscape, noise, traffic and people, considering their interrelations.

We use a defined environmental monitoring program to continuously monitor all our impacts associated with our water withdrawal. We introduced a telemetric module to monitor our water storage facility and collect information about the level of water therein. We use water meters to register all

amounts of water withdrawn and we continuously monitor, collect, check and measure the required physical values to fully protect our water sources against excessive withdrawal.

To rationalize our water consumption, in Q3 2013 we installed satellites for stationary washing of loaders on certain lines at the Jamnica Plant, which resulted in decreased water consumption by 11.75% in 2013 compared to 2012. We save water as a result of purchasing such satellites used to foam and rinse loaders and the areas around them using cleaning agents and disinfectants.

In 2012, we launched a project at the Juicy Plant to save water by using the water re-circulation method, i.e. water from the production process is reused for boiler room purposes. In 2013, we saved additional amounts of water by using a recirculating agent to lubricate conveyor belts and replenish the fresh water tank on the CIP. We purchased high-pressure nozzles to save additional amounts of water.

In 2013, the Jana Plant launched a water saving project by using re-circulating agent, so water from the L2 and L3 lines flows back into the process water pool.

#### **Biodiversity**

Jamnica's locations are: the corporate building at Getaldićeva 3, Zagreb, three production sites and four sales regions comprising sales centers and commercial warehouses. Our three production sites are:

- Jamnica Plant adjacent to the Klinča Selo Jamnička Kiselica road in the Municipality of Pisarovina;
- · Juicy Plant in the Town of Jastrebarsko; and

· Jana Plant in Gorica Svetojanska.

The closest protected area is the Žumberak Nature Park, which is approximately 1 km northwest of the Jana Plant. Operating locations owned or leased by Jamnica are not in or adjacent to any protected areas or areas of high biodiversity value.

#### **Emissions, Effluents and Waste**

The company's total direct and indirect greenhouse gas emissions include emissions from stationary sources and emissions resulting from transporting materials and products using our own vehicles (including transport and LPG fuel). To report our greenhouse gas emissions from stationary sources (boiler rooms), a certified company performed a direct measuring of our emissions.

 ${\rm CO_2}$  equivalent is a unit of measurement used to compare emissions of various greenhouse gases based on their global warming potential (GWP) and equals 1 for the next 100 years.

Our total direct and indirect  $CO_2$  emissions by weight relate to our production and transport of materials and products and were calculated on the basis of our  $CO_2$  combustion emissions as defined in Appendix A (Air Emissions) to the Environmental Pollution Registry Maintenance Manual.

### Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Production plants	8,399	8,721
Fuel for transport	3,734	2,924
LPG	550	560
CO <sub>2</sub> equivalent	12,683	12,205

As the sum of all direct and indirect emissions in tons of  $CO_2$  equivalent, our total greenhouse gas emissions in 2010 and 2011 were 22,035 t, compared to 24,888 t in 2012 and 2013.

Our other relevant greenhouse gas emissions by weight pertain to our commuting employees (bus) and our business trips (using company vehicles).

## Other relevant indirect greenhouse gas emissions by weight

Year	t CO <sub>2</sub>
2012	1,117
2013	895
Total	2,012

Other relevant indirect greenhouse gas emissions by weight were 2,446 t in 2010 and 2011. This decrease in emissions is a result of fleet downsizing in Jamnica and bus route optimization. Furthermore, an additional decrease in emissions is a result of replacing our Euro 3 and Euro 4 compliant vehicles by vehicles using Euro 5 and Euro 6 engines. These new engines significantly reduce our emissions of harmful polluting gases.

Considering the new regulations (Liquid Petroleum Fuel Quality Regulation, Official Gazette 33/2011) concerning the sulfur content in heating oil in force as of January 1, 2013, the boiler room in the Jamnica Plant began to use LUS I fuel with lower sulfur content instead of LUS II. According to the Specification of Basic Characteristics, the total sulfur content in LUS II is 2.8% m/m, compared to no more than 1.0% m/m sulfur in LUS I. While dissembling the L5 line in the Jamnica Plant in 2013, we removed the R-22 blower cooler.

As a result of converting to a new bottle design with lower preform weight and short-neck design, we reduced the impact

of our production activities on the environment resulting from greenhouse gas emissions expressed in carbon dioxide units. The completion of this project would represent a huge step forward in complying with the European trends in making 'carbonneutral' products, demonstrating an initiative to minimize the carbon footprint throughout a product's lifecycle.

After we implement our Eco-Driving project, we expect to reduce our greenhouse gas emissions by 5% in the next period.

According to the Code of Good Practice in Handling Ozone Depleting Substances, the Ozone Depleting Substances Regulation, and the Waste Electrical and Electronic Devices and Equipment Management Ordinance, we always prepare a Protocol on the Inspection of Refrigerating and Air Conditioning Equipment by a Certified Operator. In addition, Jamnica employees responsible for maintaining and handling refrigerating equipment and air conditioners using controlled and replacement substances were provided with certificates of completing the Refrigerant Management training program conducted by a certified institution (Faculty of Mechanical Engineering and Naval Architecture in Zagreb) in accordance with the international Refrigerant Management Plan – UNI-DO project.

The Jamnica production plant uses 24 kg of ozone-depleting HCFC-22 (hydrochlorofluorocarbon) for its blower cooler, while ODP equals 0 in all other cooling equipment.

To calculate our emissions, a certified operator measured our  $NO_2$ ,  $SO_2$  and CO emissions in May of 2012 and our emission

#### Wastewater

The total amount of water withdrawn is determined by using flow meters or on the basis of estimates. Wastewater in the Jamnica and Jana Plants is treated by a membrane bioreactor (MBR). The total water discharge in Jamnica by volume was 597,058  $\rm m^3$  in 2010 and 2011 and 651,354  $\rm m^3$  in 2012 and 2013, the destination being either a Class 2 water recipient or a public sewerage system, depending on the location. The total amount of wastewater discharged is consistent with the production volumes.

#### Total water discharge

Year	Wastewater (m³)
2012	339,386
2013	311,968
Total	651,354

In early 2012, Jamnica put into operation a new wastewater treatment plant. The startup phase showed increased  $BOD_5$ 

concentrations in 2013 were obtained on the basis of a calculation

## Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	$NO_2$	CO
2012	39.40	5.61	0.17
2013	25.18	9.66	0.81
Total	64.59	15.27	0.99

During the 2010-2011 reporting period, the company's total other air emissions by type and weight were 95.82 t of  $SO_2$ , 18.74 t of  $NO_2$ , and 0.54 t of CO, compared to 64.59 t of  $SO_2$ , 15.27 t of  $NO_2$ , and 0.99 t of CO during the 2012-2013 reporting period.

According to the measuring of pollutant air emissions from our heating equipment for all production sites, it is clear that our air emissions are within the allowed limits.

As regards thermal power and the type of fuel, Jamnica uses boilers classified as small heating device (Regulation on the Limits of Pollutant Emissions from Stationary Sources – the EL Regulation). The test results and analyses conducted while the heating devices in Jamnica were in operation showed that the emission concentrations found in the Jana and Juicy Plants and the Zagreb location are not in excess of the allowed emission limits.

values and we found the levels of wastewater discharge to have significantly decreased in 2013, below the required limits of discharge prescribed and allowed by the applicable regulations and the Ordinance on the Limits of Dangerous and Other Substances in Wastewater.

We also renewed our water license for our site at Getaldićeva 3, Zagreb (in June of 2013, Kanal Inspekt prepared a Wastewater Discharge Study for a Water License, including a schedule of measures and their completion dates).

The quality of treated wastewater is monitored by the Process and Wastewater Laboratory of the Faculty of Food Technology and Biotechnology in Zagreb according to a schedule required by law and this institution issues an analytical report on the quality of our treated wastewater. According to the Ordinance on the Limits of Dangerous and Other Substances in Wastewater, we analyze wastewater samples and confirm the conformity of the results.

#### Waste

Listed below are the relevant amounts of waste for Jamnica:

#### Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R	EFP, L91, UM, DI, HR, M CeZaR TK	2,767,444	2,653,274
Hazardous waste	D	Ciak. SM. Flora	45,989	117,067
Total			2,813,433	2,770,341

Waste is sorted at its source, separately collected and temporarily stored in an area designated for temporary storage of different types of waste. During the 2010-2011 reporting period, Jamnica disposed of 4,580 t of non-hazardous waste and 223 t of hazardous waste compared to 5,421 t of non-hazardous waste and 163 t of hazardous waste disposed of during this reporting period (2012-2013). Our waste management plan and employee training activities resulted in improved waste sorting and an increase in the respective waste codes by type of waste during the relevant period.

By entering into and revising our contracts with certified operators, purchasing containers for systematic sorting of all types of waste at the source and installing the same in precisely defined places within the factory area, we achieved economic benefits arising from recyclable waste (paper packaging, glass packaging, PET packaging and foil, etc.). Waste is sorted at its source, separately collected and temporarily stored in an area designated for temporary storage of different types of waste.

Better waste sorting increases the amount of non-hazardous waste, which is sold to certified operators as secondary raw material.

Sludge develops on our wastewater treatment plants at the Jamnica and Jana Plants, which represents a substantial expense and increases our waste disposal costs. For the next reporting period, we arranged for our sludge to be disposed of at the Gradec biogas plant.

In late 2012, we improved our fuel supply plant at the Jana Plant to protect it against fuel spills. We provided a new connection to the generator and repaired the fuel supply pipeline. Having improved and reconstructed our fuel supply plant, we protected it against potential extraordinary fuel spills.

We control dangerous substances (substances harmful to health and substances harmful to the environment) by using appropriate instructions and standards for handling dangerous substances and occupational safety rules, by supervising our working environment, and by constantly medically monitoring our employees handling dangerous substances. The recorded amounts of dangerous substances, both in our production plants and our fleet workshop, are below the limit required for dangerous substances by the Regulation for the Prevention of Major Accidents Involving Dangerous Substances. On its intranet site, the company provides lists of approved chemicals for all locations, including material safety data sheets and water licenses.

We collected information about chemical substances subject to the REACH Regulation (EC), no. 197/2006, and provided it to the Croatian Institute for Toxicology and Antidoping (CITA), so that the relevant Croatian authorities could provide to the European Chemicals Agency (ECHA) information that will be used to plan aid to the Croatian economy in the transitional process of aligning with the REACH Regulation in 2013 and 2014.

Jamnica has appropriate measures and procedures in place in case of extraordinary situations, which also define the responsibilities for their implementation in the Jamnica, Jana and Juicy Plants. To prevent any potential environmental incidents, Jamnica complies with all relevant regulations and cooperates with inspecting authorities. The roles and responsibilities of Jamnica Emergency Team and the employees in all Jamnica production plants are defined by the Measures and Procedures in Case of Extraordinary Situations procedure, which also presents which actions should be taken in case of an extraordinary situation.

During this reporting period, we did not record any spills of dangerous substances that may have an adverse effect on human health, soil, vegetation, water systems or ground water.

#### **Products and Services**

In early 2012, we put into operation our wastewater treatment plant at the Jamnica Plant and repaired our old wastewater treatment plant. To prevent any adverse environmental impacts, we closed the old wastewater treatment plant at the Jana Plant. In mid-2013, Jana began to autonomously dispose of its non-conforming products classified as 02 07 04 – materials unsuitable for consumption or processing at the

waste treatment plant after obtaining a non-hazardous waste management license for the Jamnica Plant and the Jana Plant locations in late 2012.

By purchasing a PET packaging punching and pressing machine, we now have all the equipment we need to ensure complete product life cycle in the case of some of our products.

The liquid is disposed of at the wastewater treatment plant and we sort and bale our packaging and then hand it over to a certified operator as raw material.

In 2013, we completed our CarbonFree® project for Jana natural mineral water, including a Life Cycle Assessment (LCA) to determine the carbon footprint (GHG) for each product throughout its life cycle. Life cycle is the overall calculation for a selected product, including raw material production, product production, distribution, use, and ultimate disposal of its packaging. Such LCA allows Jamnica to pursue its development strategy that includes minimization of significant environmental impacts and provides the company with information on where such impacts can be found and which impacts can be reduced.

A CarbonFree® certificate represents an authentic and transparent way of demonstrating our initiative to reduce our carbon footprint during the entire life cycle of a product. Such carbon footprint approach promotes Jamnica as an environmentally-friendly company and is taken into account in strategic and operational planning, environmental reporting and savings planning. Greater energy efficiency increases our competitiveness and reflects our corporate awareness and responsibility, and our trend monitoring in the global market.

Carbon footprint (CFP) is a measurement of the environmental impact of human activities through greenhouse gas emissions expressed in units of carbon dioxide. Such measurement includes all direct and indirect emissions, which are expressed in tons of eCO<sub>2</sub>. Carbon footprint is closely associated with the use of energy: the more efficiently energy is used, the lower the carbon footprint and CO<sub>2</sub> emissions are. Obtaining a CarbonFree® certificate from Carbonfund.org and NSF is an authentic and transparent way for Jana to provide carbon-neutral products to its customers. On April 1, 2013, Jana was presented with a CarbonFree® certificate for Jana natural mineral water from NSF and Carbonfund.org Foundation Inc.

To further raise environmental awareness across its operations and organization, Jamnica launched its Low Carbon Technologies project in late 2013 in cooperation with the Croatian Cleaner Production Center and UNIDO's consultants from Austria, which we plan to complete in mid-2014.

The percentage of reclaimed products and their packaging materials during the reporting period was 45% in the case of water and approximately 6% in the case of juices, which relates to the share of reusable glass packaging in total packaging by type of product – water or juice.

#### **Compliance**

Jamnica applies, maintains and updates all statutory requirements and stakeholder demands in the Aligning Environmental Aspects with Statutory and other Requirements form and in accordance with all applicable environmental regulations.

During the 2012-2013 period, 50 audits were conducted in Jamnica, 12 by external companies (BV, NSF, Kosher, US Army) and 38 were internal audits of our business management systems (quality/HACCP/environmental) by divisions and departments of Jamnica, including seven analyses of verification activities. The audits conducted by the external auditors NSF, Kosher, BV, and US Army found 100% efficiency. Rabi Kotel Da-Don, a representative of the Jewish religious community Bet Israel in Croatia, conducted Kosher audits. As no changes had been were introduced to the technological bottling process, our Kosher certificates were renewed. NSF audits were conducted according to the NSF Beverage Quality Requirements program. The responsible persons and deadlines for resolving all issues observed were determined and NSF was appropriately notified thereof. It accepted the proposed responsible persons and deadlines.

Bureau Veritas Croatia conducted a recertification audit and a supervisory audit of our integrated business management system, which included supervisory audits of our quality management system according to HR EN ISO 9001:2008 and our food safety system according to the principles of Codex Alimentarius (CAC/RPC 1-1969, Rev. 4-2003) as well as a recertification audit of our environmental management system according to HR EN ISO 14001:2004.

An audit entitled Sanitation Audit Report – US Army – Southern Europe Veterinary Detachment was conducted on September 17, 2013. The audit was conducted according to the Commercial Sanitation Audit and Approved Source Program. No non-conformities were found during the audit.

In 2012 and 2013, inspections were conducted in Jamnica by the State Water Management Inspectorate, the Ministry of Agriculture, the Sanitary Inspectorate of the Ministry of Health, the Occupational Safety Inspectorate, the Ministry of Environmental Protection and Nature Protection, and the Fire Protection Inspectorate, and no cases of non-compliance were found, which means that inspections resulted in no fines or non-monetary sanctions.

#### **Transport**

Jamnica's environmental impact includes transportation of products, members of its workforce (fuel consumption for total transport) and other goods and materials used for the organization's operations (LPG).

These parameters are presented according to the following criteria:

- · energy used in GJ, and
- greenhouse gas emissions in tons of CO2. equivalent

## Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

	Fuel for transport	LPG		Total CO <sub>2</sub> emission
	GJ	GJ	Tons of CO <sub>2</sub> equivalent for fuel	Tons of CO <sub>2</sub> equivalent for LPG
2012	67,814	12,563	4,851	550
2013	53,400	12,793	3,820	560
Total	121,214	25,356	8,670	1,110

Due to the improvement of the company's logistic processes, environmental impact of transporting products, members of its workforce and other goods and materials during the 2012-2013 reporting period is a result of using 146,569.33 GJ of en-

ergy and emitting 9,780.08 tons of  $CO_2$  equivalent of greenhouse gases. During the preceding reporting period, we used 158,681.82 GJ of energy and our greenhouse gas emissions amounted to 10,533.89 tons of  $CO_2$  equivalent.

#### **Environmental Protection Investments**

As a responsible company, Jamnica is committed to achieving its further economic development in compliance with the environmental protection principles. During this reporting period, our environmental protection expenditures and investments included our costs of waste disposal, emission treatment and rehabilitation (including measuring of and charges paid for air emissions, water charges and waste management costs, including EE waste and packaging waste costs), and environment prevention and management (environmental certifications, education and training, projects and investments), amounting to HRK 70,340,000. Our total environmental protection expenditures and investments in the preceding reporting period amounted HRK 51,841,521. The increase of 26% in costs is a result of adjusted the process of reporting the environmental protection costs. In the preceding reporting period, we included only the charge for water use and in this reporting period we included all water charges and environmental protection projects and investments. Such projects include: reparation of our process water pipelines and distribution system, reconstruction of our environmental treatment plant and our non-conforming product management machine, improvement of our production process by purchasing PET packaging bottling equipment, and implementation of a pilot project involving a new machine for production of refreshing soft drinks.

We trained 132 employees according to our ISO 14001:2004 environment training plan and 21 of our employees were trained in handling dangerous chemicals at the Croatian Institute for Toxicology. In 2013, five of our employees passed the examination to become a certified steam boiler operator pursuant to the Ordinance on the Professional Training and Knowledge Testing for the Management and Operation of Power Plants (Official Gazette 70/10 and 50/11), which came into force on June 17, 2010.

Our employees who passed the power plant operating examination before 2010 need to have their knowledge retested at the Zagreb Energy Association as follows:

steam boiler operators who passed the examination before 1975 are no longer required to have their knowledge tested – one employee; employees who passed the examination between January 1, 1986 and December 31, 1995 were required to take the second test 36 months after this Ordinance came into force (June 17, 2013) – four employees; and employees who passed the examination after January 1, 1996 were required to take the second test 48 months after this Ordinance came into force (June 17, 2014) – 11 employees. In the future, the test shall be taken every five years.

### Planned Activities and main Objectives for 2014 and 2015

Our primary objectives for the next reporting period are:

- to install and put into operation a new L5 line at the Jamnica Plant, which will result in PET material and energy savings;
- to switch to a new bottle design and short-neck bottles at the Jamnica Plant;
- to purchase burners and a control panel for the boiler room at the Jamnica Plant to reduce our greenhouse gas emissions;
- · to implement our eco-driving project;
- to implement our Low Carbon Technologies project;
- to purchase and install a pilot plant for the development of new products. The pilot plant simulates industrial conditions with a much smaller capacity, the process is shorter because smaller amounts of finished product are bottled, and the plant does not require suspension of the regular production process for testing purposes. The project will allow us to develop new products while using less raw material, input and energy; and
- to train our employees in applying an environmental management system and implementation of the same at the Mivela factory.

An example of successful activity – As an external partner, Jamnica provided its assistance, knowledge, experience and skills to help Sarajevski kiseljak of Bosnia and Herzegovina successfully implement its integrated management system at its mineral water bottling plant and have it certified. Furthermore, it thus laid the foundation for implementing a food safety system for winemaking activities at Mladina and for the Goda spring water bottling plant. These activities demonstrate that further progress in Jamnica is based on teamwork and mutual cooperation.

### **Water and Drinks**

# Mladina d.d.

Mladina is a Jastrebarsko-based winegrowing and winemaking company established in 1736 and operating in the following locations: the Corporate Building, Ulica bana J. Jelačića 85, 10 425 Jastrebarsko, the Krašić Wine Cellar, Krašić b.b., 10454 Krašić, and the Mladina Wine Cellar, Lokošin Dol 76, 10450 Jastrebarsko, including its vineyards. The Mladina Wine Cellar operates as part of The Agrokor Group and receives marketing and distribution support from Jamnica, its majority shareholder. The product range of Mladina includes premium, quality, sparkling, predicate and archival wines and brandies.

The company's central wine cellar is in Krašić and is intended for processing, ageing, bottling and storage of finished products. A special place in the business strategy of Mladina is reserved for environmental protection. By innovating its production processes with new technologies, Mladina contributes to the preservation of the environment and human health. For the purpose of improving its quality and protecting the environment, Mladina implemented a food safety management system and an environmental management system.

By appointing and training a person responsible for product safety and environmental protection and performing all associated activities and by setting our objectives for the next reporting period, we took a further step toward responsible care for the environment, monitoring all environmental aspects and eliminating and minimizing all adverse environmental impacts.

The objectives set for the 2012-2013 period were partially met. According to its objectives, Mladina implemented a food

safety management system and an environmental management system. As a result of changes in the business policy of The Agrokor Group, our investments in the reconstruction of our production plant and wine cellars, installation of a wastewater treatment plant and construction of a sewerage system at the Krašić site were suspended and investments were made in a new line for producing and bottling sparkling and carbonated wine in the Juicy Plant in Jastrebarsko. We installed a new line worth HRK 5,000,000, including state-of-the-art equipment for making sparkling wine using the Charmat process, equipment for making carbonated wine, a wine filtering system, and a line for bottling selected wines along with a bottle labeling line. The line also includes a CIP system and a washing water filtering system.

During this reporting period, we provided locations for collecting different types of hazardous waste (waste oil, oiled rags, waste glycol, etc.) and all waste collected was properly disposed of. We also disposed of waste tractor tires and began to exercise greater care in managing all types of waste resulting from our winegrowing and winemaking activities. We provided locations for mixing protective agents in the field (vineyards) to prevent environmental pollution. We also conducted internal training for our employees directly involved in waste generating processes and taught them about the importance of preserving the environment and properly collecting, disposing of and storing waste in the designated places. We also marked our waste collection sites and regularly check that waste is handled in accordance with the relevant procedure.

#### **Materials**

Direct materials (materials present in the final product) and non-renewable materials (resources not renewed over a short period of time) used during the 2012-2013 reporting period include input, packaging materials and ancillary process materials.

#### Materials used by weight or volume - kg

Type of material used	2012.	2013.
Raw material	480,450	464,020
Ancillary process materials	75,867	176,445
Packaging materials	88	113
Total	556,405	640,588

During the 2012-2013 reporting period, we recorded a significant increase in our input amounts compared to the 2010-2011 reporting period. This difference is a result of the high yields of our new plantations and the general impact of numerous endogenous (internal nutrition of a plant) and exogenous factors that are intertwined and closely interrelated and ultimately determine the yield, i.e. the total amount of input.

The increase in our consumption of packaging materials by over 100% and the increase in our consumption of ancillary process materials compared to the preceding reporting period is a result of putting into operation a new line for producing sparkling and carbonated wines and enlargement of our product range.



To reduce its need for input and contribute to preservation of resources, Mladina uses the following recycled materials to package its products in secondary and tertiary packaging:

- cardboard boxes and cardboard mats made of 100% recycled paper,
- glass packaging containing up to 60% recycled material,
- paper labels for each product group containing up to 20% recycled material.

### **Energy**

Our direct energy consumption from primary sources relates to our consumption of solid fuel (wood for heating) in our own production locations.

## Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Total solid fuel (wood) in m <sup>3</sup>
2012	27
2013	27
Total	54

Mladina's direct energy consumption from primary sources recorded during this reporting period was  $54~{\rm m}^3$  and did not change compared to the preceding reporting period because we heated rooms of the same floor area.

Mladina uses electricity as direct energy.

Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	325
2013	320
Total	645

Our total indirect energy consumption by primary source recorded during the reporting period was 645 GJ, which is 8.7% more compared to the preceding reporting period.

This increase in our electricity consumption stated in the new Report was mainly a result of intensified operation of our air conditioners during grape processing (intensified operation of cooling equipment), more wine-related procedures, preparation of wine for bottling, bottling, and preparation of large amounts of wine base intended for production of sparkling and carbonated wines. All these activities justify such increase in electricity consumption.

Having installed a new modern line with greater capacity in the Juicy Plant and improved our technological process with the option of bottling larger batches, we decreased our electricity consumption by 33% per product unit.

To remain competitive, in late 2013 Mladina launched a project for marketing carbonated wine in new lighter packaging. Once the project is implemented, we expect to achieve savings on materials and energy and thus reduce our environmental impact.

By switching to such lighter bottles, Mladina indirectly reduces its bottle suppliers' energy consumption. Our suppliers will use less energy to make the same amount of bottles of lower weight and will thus reduce the amount electricity used to make such bottles.

#### Water

Mladina uses a rational approach to the management of water as an important resource.

#### Total water withdrawal by source (m³)

Year	From a public water supply system	Total amount of all waters withdrawn
2012	1,198	1,198
2013	1,985	1,985
Total	3,183	3,183

During this reporting period, our total water withdrawal by source was  $3.183~\rm m^3$  and our water consumption per product unit decreased by 18% compared to the preceding reporting period.

Such increased total water consumption is a result of increased production in the new production plant. However, by investing in new modern technology and systematically minimizing our drinking water consumption, we reduced our consumption per product unit.

#### **Biodiversity**

Mladina's operating locations, owned or leased, are not in or adjacent to any protected areas or areas of high biodiversity value.

The company includes a corporate building based at Bana Josipa Jelačića 85, Jastrebarsko, two production sites, six winegrowing appellations where it grows grapes for internal needs, one winegrowing appellation where it grows grapes for someone else's use, and a plantation for growing planting materials. Mladina's production sites are:

- Krašić Wine Cellar the main production plant in Krašić, 100 m from the center of Krašić and 8 km from the Jastrebarsko-Karlovac fast road; the Žumberak Nature Park is only about 7 km from the Cellar building;
- aplant for making sparkling and carbonated wines within the Juicy Plant is in Jastrebarsko, about 1.5 km from the city center and 50 m from the corporate building.

#### Vineyards:

- Kolovrat, located 1 km from Pribić, 3 km north of the Krašić production plant and 1 km northwest of the Žumberak Nature Park;
- Keleduš is located in a triangle between Petrovina, Dragovanjščak and Rastoki, with the nearest residential building 500 m away;

- Polakov Breg is located on the very edge of the town of Jastrebarsko, between Zdihovo and Donja Reka, about 5 km by air from the Žumberak Nature Park;
- Mladina is located in Lokošin Dol, about 8 km from the center of Jastrebarsko;
- Borička is located next to Lokošin Dol where local residents have their vineyards on the edge of the settlement, 9 km from Jastrebarsko;
- Gaj is 2 km from the center of Jastrebarsko and separated from the surrounding settlements by a thick forest;
- the winery is located next to the Jastrebarsko-Plešivica-Samobor road in Gornja Reka, 1.5 km from the center of Jastrebarsko

#### Grapevine mother block:

 Laznica is located 2 km from Petrovina and is isolated from the surrounding settlements by forest and farmland.

Adhering to the Good Agricultural Practice guidelines, Mladina systematically monitors the impact of its activities on biodiversity. As it uses various plant protection agents (pesticides) in its operations, Mladina implemented a vineyard protection control system, including control of input agents, recording of consumption, and internal training of our employees in proper pesticide handling, proper storage of agents and proper disposal of contaminated packaging.

#### **Emissions, Effluents and Waste**

According to the applicable regulations, Mladina, as a wine-maker, is not required to measure its greenhouse gas emissions from stationary sources.

# Total direct and indirect greenhouse gas emissions by weight

t CO <sub>2</sub>
44.37
44.17
88.54

Our total direct and indirect  $CO_2$  emissions pertain only to the process of transporting materials and products, while our  $CO_2$  emissions were calculated on the basis of the type of fuel used and the total annual mileage (km) and amounted to 88.54 tons of  $CO_2$  for this reporting period. In 2010 and 2011, we emitted 68.16 tons of  $CO_2$  equivalent.

This difference in tons of  $CO_2$  equivalent is a result of a different emission calculation method. In the preceding reporting period, we calculated our  $CO_2$  emissions on the basis of the type of fuel and total annual mileage (km), unlike the 2013-2014 reporting period when we used the formula provided in the Environmental Pollution Registry (EPR).

The organization's activities resulting in indirect emissions and including business trips taken using company vehicles

creating direct or indirect energy-related emissions produced 25.52 tons of  $CO_2$  equivalent. This is much less than in the preceding reporting period when our greenhouse gas emissions amounted to 26.93 tons of  $CO_2$  equivalent.

# Other relevant indirect greenhouse gas emissions by weight

Year	t CO <sub>2</sub>
2012	13.47
2013	12.05
Total	25.52

Using company cars for business trips (arranging new deals, professional trips and professional training) resulted in an insignificant increase in our greenhouse gas emissions.

For our production purposes, we use 0,026 t of R 404a refrigerant. Our new refrigerating system, installed together with the new production line for sparkling and carbonated wines, uses 0.0153 t of R 410A refrigerant. These refrigerants are not ozone-depleting.

Mladina is not required to measure its greenhouse gas emissions from stationary sources.

#### Wastewater

Our total water discharge is determined on the basis of an estimate. Wastewater is discharged into the public sewerage system. Our total water discharge for this reporting period was  $3,183 \text{ m}^3$ , which is 25% more than in the preceding period in which it was  $2,405 \text{ m}^3$ .

Our total amount of wastewater is consistent with the total amount of water withdrawn from the public water supply system and depends on the amounts and rates of the supply of input materials.

#### Total water discharge

Year	Wastewater (m³)
2012	1,198
2013	1,985
Total	3,183

#### Waste

Presented below are the amounts of waste generated by Mladina:

#### Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R	EFP, Gumiimpex, Fenix	10,870	22,465
Hazardous waste	D	Ciak	2,200	360
Total			13,070	22,825

During this reporting period, Mladina continued to improve its systematic waste management activities undertaken in the preceding reporting period. We purchased new containers for different types of waste, disposed of some hazardous waste that had been accumulating for a while pending disposal (waste glycol, waste oil), and marked and provided areas for collecting different types of waste. We appointed a person responsible for maintaining the relevant documentation and communicating with waste disposal companies.

Waste is sorted at its source, separately collected and temporarily stored in designated containers or places. During the preceding reporting period, we disposed of 2.19 t of non-hazardous waste. The hazardous waste collected during the preceding reporting period was disposed of during this reporting period. In 2012 and 2013, we disposed of 33,335 t of non-hazardous waste and 2.56 t of hazardous waste. The

amount of municipal waste collected during the preceding reporting period was 34.43 tons. The amount of municipal waste was calculated on the basis of the volume of our containers and does not reflect the actual situation.

In 2012 and 2013, the number of municipal waste collections remained at the same level as in the preceding reporting period. As certified operators are not required to report the amounts of municipal waste collected, Mladina has no information available about the total weight of municipal waste collected.

Our waste management plan and employee training resulted in an improved waste sorting process and an increase in the respective waste codes by type of waste and amounts of waste during the relevant period.

#### **Spills**

During this reporting period, we did not record any spills of dangerous substances that may have an adverse effect on human health and/or pollute the environment. Mladina has contingency measures and procedures in place, defining the

responsibilities for their implementation in the Krašić Wine Cellar and at our production sites in Jastrebarsko. To prevent any potential environmental incidents, Mladina complies with the applicable regulations.

#### **Products and Services**

During the preceding reporting period, Mladina continued to improve its environmental protection activities by systematically managing its waste, which it started to do in the 2010-2011 period. We proceeded to purchase additional containers, designate locations for collecting different types of waste

pending their disposal, improve our documentation maintenance activities and internally train our employees, which resulted in improved figures for each type of waste and the total amount of waste disposed of.

Our grape production requires and allows using permitted plant protection agents. As this is a very important area in the company's overall business, we additionally provided internal training to our employees in handling pesticides and pesticide packaging.

Mladina does not reclaim end-of-life products or their packaging materials, but operates within the packaging waste management system and acts in accordance with the Packaging and Packaging Waste Ordinance.

### **Compliance**

During the reporting period, no cases of non-compliance with any laws or regulations were found in Mladina and no fines or non-monetary sanctions were therefore imposed.

### **Transport**

The environmental impact of Mladina's transport includes using energy (diesel fuel) and our greenhouse gas emissions.

During the 2010-2011 reporting period, we used 727 GJ of fuel for transport. We did not present the amounts of fuel used by our trucks and some of our passenger cars for that period. By comparing this data with the preceding reporting period, we found our fuel consumption to have remained at the same level.

Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

	Fuel for transport (GJ)	Total CO <sub>2</sub> emission (tons of CO <sub>2</sub> equivalent for fuel)
2012	957	58
2013	954	58
Total	1,911	116

#### **Environmental Protection Investments**

Mladina aims to contribute to economic development while adhering to environmental protection principles. Our environmental protection expenditures and investments in this reporting period include our waste management costs, the water protection and improvement charge, the municipal charge, and the packaging waste management charge. Our total environmental protection expenditures and investments

amounted to HRK 521,829, compared to HRK 342,264.93 recorded in the preceding reporting period. This 34% increase in costs is a result of increased production, which led to higher environmental protection charges. An increase in our investments in different environmental protection aspects during each year is clearly presented.

#### Planned Activities and main Objectives for 2014 and 2015

- $\bullet \ \ \text{to reconstruct our vineyards at the Mladina-Loko\'sin Dol site, including operating area systematization and leveling};\\$
- · to redesign our plant protection agent warehouse;
- to launch a project to convert our premises at the Jastrebarsko location a feeding site to be used to store fuel for our agricultural machinery (tractors);
- to purchase new diesel fuel tanker trucks appropriately certified and including a volume meter and a flow rate measuring dispenser with a fuel nozzle;
- build a bundwall for our fuel tank; and
- provide further training to our employees and responsible persons handling dangerous substances.

### **Water and Drinks**

# Sarajevski kiseljak d.d.

Sarajevski kiseljak is the largest producer of mineral water and refreshing soft drinks in Bosnia and Herzegovina, with a bottling tradition of over 120 years. Thanks to its distinctive product quality, its flexible business policy that successfully handles all market challenges and customer demands, and continuing investments in the modernization and improvement of its production processes, Sarajevski kiseljak has been an unquestionable leader in the local market and an increasingly important player on regional markets.

In late 2000, Sarajevski kiseljak was acquired by Jamnica, whereby the company became part of The Agrokor Group. This was the beginning of a new era in the company's development, marked by substantial investments in development, new technologies and marketing. Our systematically managed investment program incorporates our care for protecting nature and the environment and Sarajevski kiseljak thus became a shining example of not just an economically highly successful company, but also a socially and environmentally responsible enterprise that follows the latest global trends both in its operations and its environmental protection activities.

The company is headquartered in Kiseljak where its production facilities are also located, while its sales and distribution activities are undertaken through five regional distribution centers and two sales centers. For the purpose of ensuring that its products are safe and its environment is managed in a diligent manner, Sarajevski kiseljak was certified according to ISO 22000:2005 and ISO 14001:2004 by Bureau Veritas. These certificates are a sort of confirmation of our continuing care for the quality of our products, production processes and customer satisfaction, while complying with high environment standards and sustainable development principles.

The past period was marked by substantial investments in business improvement: we installed a new PET line, for which we installed and provided additional production, power and storage capacities. These investments were accompanied by substantial environmental protection investments.

Most of our objectives set for this reporting period were successfully met: we built a facility for systematic collection,

sorting and temporary storage of all types of waste (so-called Eco-Corner), purchased equipment for proper storage of raw materials and chemicals and managing any potential spills, and procured five electrical forklift trucks and built a station supplying them with energy. By entering into new and revising our existing contracts with hazardous and non-hazardous waste operators, we significantly reduced our waste disposal costs – this in particular pertains to our broken glass buying contracts as glass was disposed of as municipal waste. Due to our extensive work on implementing all these investments, which significantly altered the appearance of the entire plant and corporate area and included modifications of certain business processes, our development of an Operating Plan of Interventions in Case of Sudden Pollution was prolonged for the next period.

According to our training plan, we trained our employees in environmental protection according to ISO 14001:2004 (lab technicians, machine operators, employees of regional distribution centers and new employees of the Production and Logistic Division). For the purpose of training our external partners on our EMP, we prepared an educational brochure that is distributed to all our visitors entering the company area.

Sarajevski kiseljak develops, incorporates and adheres to sustainable development principles in all its business structures by using a sustainable development philosophy. Our primary objectives are meeting our customers' demands and expectations and protecting the environment as part of sustainable development.

The sustainable development areas covered by Sarajevski kiseljak include environmental protection, employee and production process safety, and socially responsible treatment of its employees and the community in which it operates.

By implementing new technologies and cleaner production, we permanently improve the quality of our products and services, while rationally using energy and raw materials and managing waste.



#### **Materials**

Direct materials (materials present in the final product), non-renewable materials (resources not renewable over a short period of time), chemicals and packaging are expressed in kg. The weight of all materials used in 2010 and 2011 was 40,203,708 kg, compared to 52,130,426 kg used in 2012 and 2013.

#### Materials used by weight or volume - kg

Type of material used	2012.	2013.
Input	7.523.500	8.726.722
Ancillary process materials	358.263	390.001
Packaging materials	19.032.820	16.099.120
Total	26.914.584	25.215.843

This increase in the amount of materials used during the 2012-2013 reporting period compared to the preceding re-

porting period is a result of a substantial increase in production (by approximately 21%) during the relevant period, while the amount of materials used per product unit did not change significantly.

Due to its reduced need for input and the need to preserve natural resources, Sarajevski kiseljak uses its best efforts to use recycled materials for packaging its products in secondary and tertiary packaging as follows:

- cardboard boxes and cardboard mats are made of 100% recycled paper;
- our new glass packaging contains up to 25% recycled material for white bottles and up to 60% recycled material for green bottles;
- our paper labels on reusable glass packaging contain up to 40% recycled material;
- our HDPE crates contain 30% regenerated material; and
- the handles are made of 93% to 100% unsorted recycled paper.

#### **Energy**

Our direct energy consumption represents our total consumption of energy from primary sources (fuel, liquefied petroleum gas – LPG) that we used in our operations at the production site.

Our fuel consumption depends on the type of product, type of packaging, volume and product category.

## Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	LPG (GJ)
2012	11,898	3,060
2013	13,224	2,943
Total	25,122	6,003

In 2010 and 2011, our direct energy consumption by primary source was 21,449 GJ, compared to 25,122 GJ used in 2012 and 2013. The total fuel consumption recorded by our production plant has been continuously increasing for a number of years, including this reporting period as well. This is caused by a continuous increase in total production, installation of a new line, inclusive of the associated equipment, and our greater needs for heating in February 2012. Namely, the equipment presently installed does not allow us to separately record the amounts of heating oil and steam used for heating purposes and as fuel. Considering our increased need for heating in February 2012 and a substantial enlargement of our production capacities, the increase in our total heating oil consumption was deemed justified and no major variations in our heating oil consumption per product unit were recorded. Although our production increased substantially, we use our best efforts to reduce or maintain our fuel

consumption per product unit by investing in new production lines and optimizing the operation of our production plant.

In its warehousing operations, Sarajevski kiseljak uses forklift trucks powered by liquefied petroleum gas (LPG) and environmentally acceptable electric forklift trucks for its indoor activities. Our LPG consumption depends on our logistic processes and the rates of handling finished products and input.

LPG is a highly environmentally-friendly source of energy. Thanks to its direct combustion producing no smoke, ash, soot, unpleasant odors or sulfuric compounds, it is more environmentally acceptable than other fossil fuels (other than natural gas). By using electric forklift trucks, we reduce our fuel costs, make less noise and avoid polluting the environment, which directly improves air quality and our overall warehouse working conditions.

Indirect energy is energy generated by the same or different primary sources external to Sarajevski kiseljak and supplied outside the company. In this case, it is electricity because we produce other forms of energy (thermal, cooling, etc.) internally.

Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	14,919
2013	17,359
Total	32,278

Our electricity consumption in 2010 and 2011 amounted to 25,798 GJ, compared to 32,278 GJ recorded in 2012 and 2013, which means that our total electricity consumption increased by 25.1% compared to the preceding reporting period. However, no significant variations in our electricity consumption per product unit were recorded. This increase in our total electricity consumption during the relevant period was a result of installing a new line, supporting power facilities and equipment, as well as a substantial increase in total production.

Our production plant makes steam internally in a closed system by fuel combustion and its consumption is calculated on the basis of the lower heating value of fuel.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Steam (GJ)
2012	12,644
2013	14,053
Total	26,697

Our steam production in the preceding reporting period amounted to 22,794 GJ, compared to 26,697 GJ recorded in 2012 and 2013. In this reporting period, our steam consumption per product unit did not vary significantly. Our steam consumption is closely related to our fuel consumption, so any variations in steam consumption are interpreted in the same way as in fuel consumption.

For the purpose of enhancing its competitiveness and retaining its leading position in the market, Sarajevski kiseljak undertook a number of activities in 2012 for the purpose of increasing its production capacities and modernizing and improving its PET packaging bottling process. We therefore installed a PET line offering state-of-the-art performance and ensuring substantial savings of energy and ancillary process materials. We redesigned our PET bottles and significantly reduced the weight of the pre-form, while our conversion to the short-neck design (PCO 1881 thread) allowed us to additionally reduce our use of plastic materials.

We are in the process of finalizing the redesign of our PET bottles for the L2 line (for bottling mineral water in 1.5 and 0.5 L packaging), which will, in addition to reduced weight, include our conversion to the short-neck bottle design.

By managing our production process on a daily basis, we aim to control the operation of our machines in order to save energy and reduce our final costs. We systematically monitor our energy consumption and reach conclusions on how successful our measures were on the basis of such information. By undertaking the above activities and good housekeeping measures on a daily basis, we expect to reduce our consumption of plastic materials and energy, thus also reducing the related pollution.

By switching to a new bottle design with lower pre-form weight, Sarajevski kiseljak indirectly reduces the amounts of energy used by our preform suppliers. Such suppliers will use 8%-10% less energy to make the same amount of pre-forms of lower weight (5 to 7 grams less per pre-form) and will thus save substantial amounts of electricity used to heat such preforms.

#### Water

Sarajevski kiseljak uses an integrated approach to water management. Water used by the company includes water from own sources, process water, and water from a public water supply system. As an important resource, water is managed rationally. Water is subjected to constant quality audits and we monitor how much water is used and how.

#### Total water withdrawal by source (m<sup>3</sup>)

Year	From wells	For process purposes	From a public water supply system	Total amount of all waters withdrawn
2012	52,727	104,859	1,122	158,708
2013	46,180	147,957	1,625	195,762
Total	98,907	252,816	2,747	354,470

The total amount of water used in 2012 and 2013 was  $286,520~\text{m}^3,\,284,330~\text{m}^3$  of which was water withdrawn (from our own sources for production and process purposes), and  $2,190~\text{m}^3$  was water from a public water supply system. Our total water consumption increased as a result of installing a new line and a significant increase in production, while no major variations in water consumption per product unit were recorded.

Our new Krones line installed in Q3 2012 uses a silicone agent for lubricating conveyor belts that should not be mixed with water and thus allows us to reduce our water consumption. Additional water savings were achieved by revising our syrup plant washing schedule as well.

At the Sarajevski kiseljak production plant, water is presently recycled by using water from the washers to wash the crates. We also launched a project for saving water by using recy-

cled materials in the syrup plant, i.e. returning water used for cooling massecuite to the recycled process water tank, where

it will be reused for the same purpose. The completion of this project is expected to provide significant water savings.

### **Biodiversity**

The company's operating locations, owned or leased, are not in or adjacent to any protected areas or areas of high biodi-

versity value, so there are no significant impacts on biodiversity resulting from our activities, products or services.

#### **Emissions, Effluents and Waste**

Total direct and indirect greenhouse gas emissions from Sarajevski kiseljak include emissions from stationary sources and emissions resulting from transporting materials and products by using our own vehicles (including transport and LPG).

Our greenhouse gas emissions from stationary sources (boiler room) were directly measured by a certified company.

# Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Production plants	928	1,030
Fuel for transport	1,487	1,337
LPG	134	129
CO <sub>2</sub> equivalent	2,549	2,496

Our total direct and indirect  $CO_2$  emissions by weight relate to our production and transporting materials and products and were calculated on the basis of an estimate of  $CO_2$  emissions resulting from combustion as defined in Appendix A (Air Emissions) to the Environmental Pollution Registry Maintenance Manual. As the sum of direct and indirect emissions expressed in tons of  $CO_2$  equivalent, our total greenhouse gas emissions amounted to 4,713 t in 2010 and 2011, compared to 5,045 t in 2012 and 2013.

Our other relevant indirect greenhouse gas emissions by weight pertain to our employees using company vehicles to travel to and from work on a daily basis (passenger cars).

# Other relevant indirect greenhouse gas emissions by weight

Year	t CO <sub>2</sub>
2012	96
2013	99
Total	195

The amounts of  $CO_2$  emissions were calculated on the basis of an estimate of  $CO_2$  emissions resulting from combustion as defined in Appendix A (Air Emissions) to the Environmental Pollution Registry Maintenance Manual.

Other relevant indirect greenhouse gas emissions by weight in Sarajevski kiseljak for the 2012-2013 reporting period amounted to 195 t, compared to 197 t recorded in the preceding reporting period.

Complying with high environmental standards, Sarajevski kiseljak uses extra light heating oil (ELHO) with lower sulfur content (up to 0.5% m/m sulfur) for its boiler room.

After we finalize our conversion to a new bottle design with lighter preform and the short-neck design, we will reduce the environmental impact of our production activities in the form of greenhouse gas emissions expressed as units of carbon dioxide.

The raw material and input warehouse within the bottling plant uses a refrigerator for storing fruit bases for preparing carbonated soft drinks, which uses 6 kg of ozone-depleting R22 refrigerant (hydrochlorofluorocarbon), while all other cooling equipment has zero ODP.

Sarajevski kiseljak has no present plans for replacing R-22 because, according to the Resolution on the Requirements for and the Method of Implementing the Montreal Protocol and Gradual Removal of Ozone Depleting Substances in Bosnia and Herzegovina (Official Journal of Bosnia and Herzegovina no. 36/07), using HCFC-22 will not be prohibited before January 1, 2030.

The calculation of our NOx,  $SO_2$  and CO emissions was based on measuring performed in 2012 and 2013 by a certified organization and we are required by law to measure them on an annual basis.

# Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	$NO_2$	CO
2012	11.84	1.26	0.13
2013	13.16	1.40	0.14
Total	25.00	2.66	0.27

During the 2010-2011 reporting period, our total other air emissions by type and weight were 21.34 t of SO<sub>2</sub>, 2.27 t of NO<sub>2</sub>, and 0.23 t of CO. The figures for the 2012-2013 reporting period are 25.0 t of SO<sub>2</sub>, 2.66 t of NO<sub>2</sub>, and 0.27 t of CO.

According to the result of measuring air emissions of pollutants from the boiler room, it is clear that our air emissions are within the allowed limits.

#### **Wastewater**

Our total water discharge is determined on the basis of an estimate. In agreement with the relevant institutions, the calculation method used in the preceding reporting period changed, so our values were recalculated to reflect the new calculation procedure. For our preceding reporting period, total water discharge was only calculated on the basis of experiential assessments and estimates. As of 2012, the amount of water discharge has been calculated according to a specific formula, as instructed by the Federal Bureau of Statistics:

Total amount of all waters withdrawn (mineral water + water from own wells used for process purposes + water from a public water supply system) – bound water, i.e. water that ends up in finished products.

After this formula was effectively implemented, we recalculated the amounts of water discharge recorded in the preceding reporting period (2010-2011) to obtain comparable values

#### Total water discharge

Year	Wastewater (m³)
2012	63,900
2013	85,800
Total	149,700

Our total wastewater discharge increased as a result of a substantial increase in production and no major variations in the amount of water discharge per product unit were recorded.

Before being discharged into a type 2 water recipient, wastewater is neutralized in a three-degree deposit tank. The treatment of wastewater in Sarajevski kiseljak will be taken care of after the town of Kiseljak builds its wastewater treatment plant, after which all wastewater will flow into such town wastewater treatment plant instead of a type 2 deposit tank. We are in the process of obtaining a water license for discharging wastewater into a natural recipient from the relevant Agency for the Sava Water Area.

According to the Regulation on the Conditions of Discharging Wastewater into Natural Recipients and Public Sewerage Systems (Official Journal of the Federation of Bosnia and Herzegovina no. 04/12), the certified organization Dvokut pro from Sarajevo conducted a two-month analysis of wastewater quality. The burden of wastewater pollution is expressed as population equivalent (PE), while the unit of pollution of is inhabitant equivalent (IE).

Sarajevski kiseljak, whose total annual amount of pollution by population equivalent (PE) exceeds 500 IE, conducts wastewater sample testing once every two years, i.e. tests its waste and harmful substances before being discharged into surface waters for the purpose of accounting for and paying a special water protection charge. In January 2012, the wastewater burden expressed as PE was 1,173 IE.

We are in the process of finalizing our project for building an alkali regeneration plant by which we plan to significantly reduce the volume of our wastewater from bottle washers, thus also reducing our total consumption of fresh water in addition to decreasing the volume and saturation of wastewater.

#### Waste

Presented below are the amounts of waste generated at Sarajevski kiseljak:

#### Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R	EF, ET, ES, Alba, Graming, DD, KJKPViK	473,521	405,258
Hazardous waste	D	Grioss, DeltaPetrol, Tesla	1,124	1,040
Total			474,645	406,298

Waste is sorted at its source, separately collected and temporarily stored in an area designated for temporary storage of different types of waste. During the preceding reporting period, Sarajevski kiseljak disposed of 861 t of non-hazardous

waste and 0.19 t of hazardous waste. In this reporting period, we disposed of 879 t of non-hazardous waste and 2 t of hazardous waste. Our waste management plan and employee

trainings resulted in improved waste sorting process during the relevant period.

After entering and revising our contracts with certified operators and purchasing containers for systematic sorting of all types of waste at the source and installing the same in precisely defined places within the factory area and our distribution centers, we obtained economic benefits arising from selling recyclable types of waste (paper packaging, glass packaging, PET packaging and foil). A better waste sorting process increases the amount of non-hazardous waste, which is sold to certified operators as secondary raw material.

A significant decrease in the amount and costs of disposing of municipal waste resulted from our conclusion of a contract with an organization collecting waste glass packaging. Be-

fore we entered into such contract, broken glass was treated and disposed of as mixed municipal waste; however, its specific characteristics required much higher costs of disposal, transport and handling than those incurred for traditional municipal waste.

During this reporting period, Sarajevski kiseljak did not record any spills of dangerous substances that may have an adverse effect on human health, soil, vegetation, water systems or ground water. Dangerous substances (substances harmful to health and substances harmful to the environment) are controlled on the basis of the relevant instructions and standards for handling dangerous substances. The intranet site of Sarajevski kiseljak provides lists of approved chemicals including the relevant material safety data sheets.

#### **Products and Services**

Sarajevski kiseljak has contingency measures and procedures in place, defining the responsibilities for their implementation. To prevent any potential environmental incidents, Sarajevski kiseljak complies with the applicable regulations and cooperates with the relevant inspectorates. The roles and responsibilities of the Emergency Team and the employees in all Sarajevski kiseljak production plants are defined by the Measures and Procedures in Case of Extraordinary Situations procedure, which also presents which actions should be taken in case of an extraordinary situation.

Our implemented project for redesigning our juice PET bottles in PET packaging, where we significantly reduced the weight of the pre-form, and our ongoing project for redesigning our mineral water and Sensation bottles and converting to a short-neck bottle design (PCO 1881 thread), will allow us to reduce our environmental impacts by reducing our use of plastic materials and energy.

### Percentage of reusable packaging in total packaging by type of product (%)

Reusable packaging materials	2012	2013
Product group (mineral water)	89.84	74.35
Product group (juice)	62.98	73.57
Total	83.90	73.97

The percentage of products and their packaging materials reclaimed by Sarajevski kiseljak is significant because all glass packaging is reusable and its weight is much greater than the weight of other packaging materials. In addition to glass packaging, reusable packaging includes reusable plastic crates.

#### Compliance

Sarajevski kiseljak implements, maintains and updates all statutory requirements and stakeholder demands in the Aligning Environmental Aspects with Statutory and other Requirements form and in accordance with all applicable environmental regulations.

27 audits were conducted at Sarajevski kiseljak in 2012 and 2013, four of them by the external certifying organization BV. Twenty-three internal audits of our business management system (food safety and environmental protection) were conducted by division, department and regional distribution center of Sarajevski kiseljak.

Bureau Veritas Croatia conducted recertification and supervisory audits of our integrated business management system, which included a recertification and a supervisory audit of our food safety management system according to ISO 22000:2005 and supervisory audits of our environmental management system according to ISO 14001:2004.

The inspections conducted at Sarajevski kiseljak in 2012 and 2013 included:

- 1. inspections of pressure vessels;
- 2. inspection by the Cantonal Ministry of Health and Social Policy Sanitary Inspectorate;
- 3. inspection by the Cantonal Ministry of Agriculture, Water Management and Forestry; and
- 4. inspection by the Federal Ministry of Agriculture, Water Management and Forestry.

No cases of regulatory non-compliance were recorded at Sarajevski kiseljak during this reporting period, which means no fines or non-monetary sanctions were imposed.

#### **Transport**

The environmental impact of Sarajevski kiseljak includes transporting products and other goods and materials used for the organization's operations by using own vehicles (LPG).

These parameters are presented according to the following criteria:

- · energy used in GJ, and
- greenhouse gas emissions in tons of CO<sub>2</sub> equivalent.

# Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

Fuel for transport		LPG		Total CO <sub>2</sub> emission
	GJ	GJ	Tons of CO <sub>2</sub> equivalent for fuel	Tons of CO <sub>2</sub> equivalent for LPG
2012	20,787	3,060	1,487	134
2013	18,688	2,943	1,337	129
Total	39,475	6,003	2,824	263

A significant increase in production and logistic processes resulted in an increase in our energy consumption and greenhouse gas emissions compared to the preceding reporting

period; however, these figures decreased in 2013 compared to 2012 as a result of improvements in our logistic processes.

#### **Environmental Protection Investments**

Sarajevski kiseljak has incorporated its care for the environment in all its business processes. During the reporting period, our environmental protection expenditures and investments included our costs of waste disposal, measuring air emissions, analyzing wastewater quality including the related charges, our waste management costs, packaging and EE waste charges, and costs of environmental prevention and management (environmental certifications, trainings, projects and investments), amounting to EUR 268,357. Our environmental protection expenditures and investments in the 2010-2011 reporting period totaled EUR 46,726. This notable

increase in costs is a result of paying charges for packaging and EE wastes (which we were not required to pay in the preceding reporting period) and including our projects and investments in environmental protection costs. This relates to the construction of a facility designated for systematic collection, sorting and temporary storage of all types of waste and procurement of waste management equipment.

According to our ISO 14001:2004 environmental training plan, we trained 80 employees in 2013, 40 of them from regional distribution centers.

#### Planned Activities and main Objectives for 2014 and 2015

Our primary objectives for the next reporting period are:

- to convert to a new bottle design on the L2 line and short-neck closure at the Sarajevski kiseljak production plant;
- to finalize our alkali regeneration plant project and commission the plant;
- to install heat meters in all segments of production using thermal energy;
- · to implement our water saving project by using recycled material in the Process Preparation Department; and
- to develop an Operating Plan of Interventions in Case of Sudden Pollution.

**An example of successful activities** – To prevent emissions of harmful substances into water and soil and improve its waste management process, Sarajevski kiseljak built a facility for systematic collection, sorting and temporary storage of all types of waste in 2012. Thanks to this environmental protection investment, our waste management standards were raised and such improved waste disposal conditions were reflected in its quality as a secondary raw material, thus generating more revenue.

### **Water and Drinks**

# Fonyódi Kft.

The Fonyódi natural mineral water bottling plant based in Hungary has operated as part of The Agrokor Group since 2004. Since that time, we have invested substantial funds in technology and production processes. The bottling plant contains two production lines. Its primary products are Fonyodi natural mineral water and non-carbonated water.

Natural spring water Fonyódi is a popular brand in the Hungarian market, and its well-balanced mineral content, exclusive of nitrates and nitrites, provides it with a drinkable and distinctive quality. The overall product range comprises natural carbonated spring water, natural non-carbonated spring water and flavored spring water. As of 2010, Fonyódi has been producing Akvia natural spring water for the Croatian market.

Fonyódi puts significant efforts into developing a business management system. The company has also implemented a food safety system, while its quality management system has been certified. To demonstrate its systematic care and control of the production process and products, the Fonyódi bottling plant had its quality management system certified according to ISO 9001:2000 and is registered and audited by the certified institution NQA.

The objectives set for this reporting period were met. Waste is properly sorted and disposed of, training was provided

to employees concerning the importance of environmental protection and methods of preventing and reducing pollution and generation of all types of waste, while energy consumption is monitored in compliance with the relevant regulations.

The company is committed to preserving the environment and reducing any adverse environmental impacts of our business operations by introducing innovations into our production process, reducing and systematically disposing of all types of waste, and by raising nature protection awareness.

### Activities planned for this reporting period and their results

Fonyódi undertook the following activities for the purpose of improving its environmental protection:

- It enhanced its wastewater management system and improved the process of sorting of all types of waste by purchasing new containers for different types of waste and revised its contracts with certified waste collecting organizations
- It provided additional environmental management system and food safety system training to 20 employees.
- It reduced the weight of its pre-forms, the thickness of labels on foil and the thickness of paper bag handles.

#### **Materials**

The materials used during the reporting period included input and natural resources used to make products, process supporting materials (oil and lubricants for production machines), and packaging. Direct materials (materials present in the final product) and indirect materials (resources not renewable over a short period of time) are expressed in kg.

The total weight used in the preceding reporting period was 51,956,650 kg, compared to 50,950,156 kg for this reporting period. The total amounts of material used were roughly equ-

al. Fonyódi does not use any recycled packaging materials for its production.

#### Materials used by weight or volume - kg

Type of material used	2012.	2013.
Input	24.751.570	25.743.921
Ancillary process materials	19.513	18.308
Packaging materials	330.607	86.237
Total	25.101.690	25.848.466



#### **Energy**

Direct energy consumption represents total energy consumption from primary sources (natural gas, liquefied petroleum gas – LPG) used in the company's operations.

# Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Natural gas (GJ)	LPG (GJ)
2012	806	346
2013	752	417
Total	1,558	763

The total energy consumption for the 2010-2011 reporting period was 1,866 GJ. During this reporting period, the total consumption of energy from primary sources was 2,321 GJ. Natural gas is used at the location for heating and its consumption depends on the weather conditions. Furthermore, natural gas is used to heat process water for washing glass packaging and the total consumption of natural gas depends on how many products in glass packaging are made. As our production of 1.0 liter glass bottles was suspended in 2013 and our production of 0.25 liter bottles was reduced, our natural gas consumption decreased from 1,670 GJ to 1,558 GJ. Our production of reusable glass decreased by approximately 30% compared to the 2010-2011 reporting period.

In 2010 and 2011, we used 10,120 kg of LPG, compared to 11,341 kg in 2012 and 2013. The figures expressed in GJ in our 2010-2011 report were calculated according to a different formula. Having aligned these figures, our direct consumption of LPG increased insignificantly.

Indirect energy is energy generated by a single primary source or other primary sources and supplied outside the company.

Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	1,748
2013	1,821
Total	3,569

Direct energy supplied and used from non-renewable energy sources largely depends on our total production. Our electricity consumption for the 2012-2013 was 3,569 GJ, the increase resulting from increased production. Our total indirect energy consumption by primary source was 3,452 GJ during the 2010-2011 reporting period.

After we reconstructed an old block within the bottling plant, we reduced our losses of energy needed to heat the solutions used for CIP washing.

After converting to new bottles with lighter pre-forms, Fonyódi will reduce its energy consumption. Once the project is implemented, we expect to achieve PET material and energy savings, but also to reduce our pollution.

By switching to a new bottle design with lighter pre-form, Fonyódi indirectly reduced the amounts of energy used by the suppliers of such pre-forms. Such suppliers will use less energy to make the same amount of pre-forms of lower weight and will thus save substantial amounts of electricity used to heat such pre-forms.

#### Water

As an important resource, water is managed rationally. Water is subjected to constant quality audits and we monitor how much water is consumed and how it is used.

The water we use includes water withdrawn from our own sources, process water and water from a public water supply system. The total amount of water used in the 2010-2011 reporting period was 49,891  $\rm m^{3}$ , 48,028  $\rm m^{3}$  of which was water withdrawn (from our own sources and wells) and 1,863  $\rm m^{3}$  was water from a public water supply system. The total volu-

me of all waters withdrawn during this reporting period was  $53,611~\text{m}^3$ ,  $50,470~\text{m}^5$  of which was water withdrawn from our own sources and wells and  $3,141~\text{m}^3$  was water from a public water supply system. This difference in total water withdrawal during this reporting period compared to the preceding reporting period is a result of an increase in production by approximately 34% compared to the preceding reporting period.

#### Total water withdrawal by source (m³)

Year	From wells	For process purposes	From a public water supply system	Total amount of all waters withdrawn
2012	24,030	710	1,681	26,421
2013	24,965	765	1,460	27,190
Total	48,995	1,475	3,141	53,611

To prevent excessive use or potential contamination of sources, Fonyódi controls, determines, describes, assesses and defines all potential direct and indirect environmental impacts.

All impacts associated with water withdrawal are constantly measured, monitored and supervised. Fonyódi does not use recycled water in any of its processes.

### **Biodiversity**

The bottling facility is located near the town of Fonyódi on the south bank of Lake Balaton. The plant covers a total area of  $13,911~\text{m}^2$  (industrial area) +  $4,699~\text{m}^2$  (water pump area). Its buildings (factory, offices, community buildings, stores) stretch across  $2,819~\text{m}^2$ .

The Fonyódi production plant is not in or adjacent to any protected areas or areas of high biodiversity value, so it has no impact on biodiversity associated with its activities, products or services.

#### **Emissions, Effluents and Waste**

The greenhouse gas emissions generated by the boiler room are determined on the basis of our fuel consumption and the number of boiler room hours of operation. Our total direct and indirect  $CO_2$  emissions resulting from transport were determined by estimating our  $CO_2$  emission resulting from combustion as defined on the Guide for the Preparation of the Plant Greenhouse Gas Emissions Monitoring Plan issued by the relevant regulatory authority.

# Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Production plants	11	8
Fuel for transport	113	108
LPG	14	17
CO <sub>2</sub> equivalent	138	133

Our total greenhouse gas emissions include all emissions generated by the boiler rooms, transport and LPG. During this reporting period, they totaled 271 tons of  $CO_2$  equivalent, which is 8.5% less than the preceding reporting period.

Our other relevant indirect greenhouse gas emissions relating to our commuting employees and business trips (using company vehicles) are insignificant compared to our other activities resulting in direct or indirect emissions.

By using a new bottle pre-form of lower weight, we reduce the environment impact of our production activities in the form of greenhouse gas emissions expressed in units of carbon dioxide. Our project for reducing the pre-form weight (from 37.5 g to 32.5 g for our 1.5 L carbonated and flavored products; from 36 g to 32.5 g for our 1.5 L non-carbonated products; and from 25 g to 21 g for our 0.5 L and 0.75 L carbonated, non-carbonated and flavored products) helped decrease the environmental impact of our production activities.

Having implemented this project, we took a major step forward in adhering to the European trends of making 'carbonneutral' products and demonstrated our initiative to reduce our carbon footprint throughout a product's life cycle.

Fonyódi does not use any ozone-depleting substances in its production processes.

A certified organization measured our  $NO_2$  and CO emissions.

## Total direct and indirect greenhouse gas emissions by weight (in tons)

Total	0.0047	0.00219
2013	0.0019	0.00089
2012	0.0028	0.0013
Year	NO <sub>2</sub>	CO

As regards our total other air emissions by type and weight recorded during the 2010-2011 reporting period, we emitted 0.0075 tons of  $NO_2$  and 0.0034 tons of CO. During the 2012-2013 reporting period, our air emissions were 0.0047 tons of  $NO_2$  and 0.00219 tons of CO. Our total air emissions by type and weight were reduced as a result of decreased gas consumption.

#### Wastewater

Presented below is our total water discharge in  $\rm m^3$  for 2012 and 2013 according to the total amount of wastewater. Wastewater is discharged into the public sewerage system. We measure our water discharge by using water flow meters.

During this reporting period, our total water discharge by volume was 4,616 m³, compared to 2,887 m³ recorded in the preceding reporting period. Increased production of flavored water resulted in increased consumption of water used to wash our production lines, which in turn resulted in a greater volume of wastewater discharge in 2012 and 2013.

#### Total water discharge

Year	Wastewater (m³)
2012	2,391
2013	2,225
Total	4,616

#### Waste

Presented below is our waste management data for the 2012-2013 reporting period, including the amounts of waste (in tons), types of waste, disposal methods, and operators. Non-hazardous waste includes paper, plastic, wood, glass,

aluminum, iron, stainless steel, etc., while hazardous waste includes waste oil, hazardous packaging materials, waste laboratory chemicals and oil filters.

#### Total weight of waste by type and disposal method (tona)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R	Bányai Béla EV, Mindenker Ltd., Móraplast Invest Ltd, Polgár & Polgár Ltd	43.40	51.70
Hazardous waste	K	DESIGN Ltd.	0.10	0.14
Total			44	52

Waste is sorted at its source, separately collected and temporarily stored in an area designated for temporary storage of waste. During the 2010-2011 reporting period, we collected 6,907 tons of waste, compared to 96 tons in 2012 and 2013.

Such large amounts of collected waste are a result of derecognizing old machines and iron that had not been used but were present at the location, and disposing of old bottles and crates and other materials within the storage area.

#### **Spills**

We did not record any significant spills of dangerous substances during the reporting period that may have an adverse effect on human health, soil, water, air or biodiversity.

#### **Products and Services**

By reducing the weight of its pre-forms, Fonyódi makes a positive impact on the environment by reducing its direct and indirect energy consumption.

Fonyódi does not recover its products in PET packaging, unlike end-of-life reusable glass, crates and wooden pallets that are recovered.

#### **Compliance**

We did not record any cases of non-compliance with any laws or regulations and no fines or non-monetary sanctions were imposed during the 2012-2013 reporting period.

#### **Transport**

Our environmental impact includes transporting products using our own vehicles (fuel consumption for total transport) and other goods and materials used for the organization's operations (LPG).

These parameters are presented according to the following criteria:

- · energy used in GJ, and
- greenhouse gas emissions in tons of CO<sub>2</sub> equivalent.

# Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

	Fuel for transport	LPG		Total CO <sub>2</sub> emission
Year	GJ	GJ	Tons of CO <sub>2</sub> equivalent for fuel	Tons of CO <sub>2</sub> equivalent for LPG
2012	1,576	346	113	14
2013	1,509	416	108	17
Total	3,085	762	221	31

During the preceding reporting period, our environmental impact resulting from transporting products, members of the workforce and other goods and materials was 3,436.23 GJ of energy used and 265.55 tons of  $CO_2$  equivalent of greenhou-

se gas emissions. During the 2012-2013 reporting period, we used 3,085 GJ of fuel, 762 GJ of LPG, and our total transport emissions were 252 tons of  $CO_2$  equivalent. This decrease is a result of changes in LPG density.

#### **Environmental Protection Investments**

#### **Environmental protection investments**

Year Waste management (E	
2012	148,259
2013	131,557
Total	279,816

2012.: 1 EUR = 289 HUF 2013.: 1 EUR = 295 HUF

Fonyódi's commitment to managing and systematically sorting hazardous and non-hazardous waste is incorporated in the foundations of its business. We spent a total of EUR

 $279,\!816$  on systematic waste management during this reporting period.

These figures represent environmental charges, including charges paid for Fonyódi and Jamnica products, including PET packaging, closures, labels, foil, paper handles, wooden pallets and bottle caps imported for Fonyódi. In addition, Fonyódi paid environmental charges for its raw materials in the amount of HUF 18,896,208 in 2012 and HUF 18,208,487 in 2013. These costs are incorporated in Fonyódi's standard product cost. As Fonyódi had already provided internal environmental training, it incurred no other prevention costs during this reporting period.

#### Planned Activities and main Objectives for 2014 and 2015

- to convert to a new bottle design (lighter preform and closures),
- to reduce the weight of our secondary packaging material (reduce label thickness, reduce wrapping foil weight, reduce cardboard mat weight, reduce our use of adhesives for labels),
- · to reduce energy consumption, and
- to use recycled materials for secondary packaging

### **Water and Drinks**

# Nova Sloga d.o.o.

Nova Sloga from Trstenik, which has existed since 1956, has 42 years of experience in fruit and vegetable processing and 29 years of experience in producing Mivela mineral water. Nova Sloga has operated as part of The Agrokor Group since 2009. Its production is organized in two plants:

**The MIVELA mineral water production plant** – is located in the village of Veluće, surrounded by intact nature. The source is some 900 meters from the bottling plant, at an elevation of 220 m.

**The Refrigeration Plant** is a facility for processing, freezing and storing fruits and vegetables. The refrigeration facility is located in Trstenik within the corporate headquarters area.

Nova Sloga opted for an environmental protection policy with the following primary objectives: to minimize and prevent all kinds of environmental pollution in its immediate and greater surroundings, which is achieved by adjusting our technological processes and providing constant education for the purpose of increasing our the awareness and knowledge of our employees; properly dispose of hazardous and non-hazardous waste, temporarily store waste and have it disposed

by certified operators; continuously protect the environment, identify environmental aspects and risks, and define goals and programs for their minimization and elimination.

We successfully achieved the following objectives set for this reporting period:

We optimized our technological process at the Refrigeration Plant. In 2012, we installed compensation stations (capacitor batteries), so reactive power used to operate electric motors and transformers is compensated by a capacitor, and does not go any further from the consumer, i.e. does not go through the electricity meter. This provides benefits to the electricity system because reactive power causes losses of active power in the transmission system. By eliminating unnecessary transport of large amounts of reactive power, technical losses of active power are reduced across the electricity system. In 2013, we also installed a compensation station at the Mivela mineral water bottling plant, which was one of the main tasks for this period. Such installation of compensation stations contributed to reduced electricity consumption in both plants. The HACCP system at the Mivela Plant was certified in 2012, and the HACCP system of the Refrigeration Plant in

#### **Materials**

Direct materials present in the final product and chemicals and packaging materials used in this reporting period are expressed in kg.

#### Materials used by weight or volume - kg

Type of material used	2012.	2013.
Raw material	45,970	126,860
Ancillary process materials	3,605	3,997
Packaging materials	250,431	753,936
Total	300,006	884,793

During the preceding reporting period, we used 256,180 kg of material in 2010 and 261,632 kg in 2011. This increase in the weight of materials used in 2013 compared to 2012 and the preceding 2010-2011 reporting period is a result of an increase in the production of Mivela mineral water. This increase is also reflected in the amount of input and packaging materials used, while the amount of ancillary process materials remained roughly at the same level.

Nova Sloga does not use any recycled packaging materials to package its products. In the Refrigeration Plant, fresh raw materials (cherries, blackberries and raspberries) are placed in small plastic containers. At the beginning of the season, old damaged packaging is replaced in this plant by new packaging made of regenerated materials. The percentage of such small plastic containers obtained by exchanging new regenerated packaging for broken packaging in the total amount of new small plastic containers procured is presented in the table below:

Containers procured	2012.	2013.
Exchange on a "damaged for new" basis	37%	94%
Procurement of new containers made of regenerated material	63%	6%

In 2012, Nova Sloga delivered its damaged PVC containers to Krušik plastika, which engages in plastic processing. In exchange, we received new containers made of regenerated material. Nova Sloga purchased the remaining 63% of its containers as new, but they were also made of regenerated material. In 2013, we exchanged our damaged containers at Zlatar plast



#### **Energy**

The primary energy sources used by Nova Sloga are diesel fuel (euro diesel) and unleaded gasoline (BMB), as well as liquefied petroleum gas (LPG) for its loading and unloading purposes.

# Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	LPG (GJ)
2012	164	43
2013	256	193
Total	420	236

Our direct energy consumption by primary source was 905 GJ in 2010 and 2011 (791 GJ of fuel, 114 GJ of LPG), compared to 656 GJ in this reporting period. We recorded a decrease in our fuel consumption compared to the preceding reporting period as a result of less vehicles and more rational use of the remaining vehicles.

We also recorded an increase in our LPG consumption compared to the preceding reporting period as a result of increased production and sale. Nova Sloga uses LPG powered forklift trucks for its warehousing operations and for loading goods onto vehicles distributing finished products. LPG is supplied in reusable 10 kg gas bottles. Our LPG consumption depends on the rate of purchasing production materials and the rate of delivering our finished products. Nova Sloga uses electric forklift trucks and manual pallet forklifts trucks for its indoor activities. We thus improve air quality in our warehouse and production facilities.

Indirect energy is energy generated externally and supplied outside the company. Indirect energy used by Nova Sloga is electricity and ammonia.

**Electricity** is supplied by Elektroprivreda Srbije and is used to operate our machines and lighting equipment.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	11,311
2013	12,528
Total	23,839

Our electricity consumption in 2010 and 2010 amounted to 23,148 GJ, compared to 23,839 GJ in 2012 and 2013. Our electricity consumption increased in this reporting period as a result of increased production. However, such increase is insignificant compared to the preceding reporting period because we installed compensation batteries that reduced our electricity consumption in both plants. Nova Sloga does not produce steam in its production plants.

**Amonia** is used as a refrigerant in the primary cooling system. The tanks and pipelines of the closed cooling system (operated manually only) contain approximately 16 tons of ammonia.

# The amount of waterless ammonia loaded into the closed cooling system in kg

Year	Waterless ammonia (kg)
2012	1,500
2013	1,500
Total	3,000

No additional amounts of ammonia were loaded into the system during the reporting period.

#### Water

Nova Sloga uses water for drinking and sanitary purposes, for production purposes as process water and cooling water, for washing its plants and facilities, and for bottling mineral water. Nova Sloga's water is supplied from two sources: Mive-

la is supplied with water from its own onsite well, while the Refrigeration Plant purchases water from the public water supply system of the Municipality of Trstenik.

#### Total water withdrawal by source (m³)

Year	Ground water bound to the product	Water from our own well	Water from the public water supply system	Total amount of all waters withdrawn
2012	5,331	2,075	6,213	13,619
2013	19,334	3,940	8,640	31,914
Total	24,665	6,015	14,853	4 <b>5,533</b>

The total amount of water used in 2010 and 2011 was 24,295 m<sup>3</sup>, 18,187 m<sup>3</sup> of which was water withdrawn (from our own

sources for production and process purposes) and 6,108  $\rm m^3$  was water from the public water supply system. In 2012 and

2013, we used a total of 45,533 m $^3$  of water, 30,680 m $^3$  of which was water withdrawn (from our own sources for production and process purposes) and 14,853 m $^3$  was water from the public water supply system. Mivela's water consumption was reduced compared to the preceding reporting period because

we repaired our existing pipelines. The water consumption recorded in the fruit and vegetable processing plant increased compared to the preceding reporting period as a result of increased production in this plant.

### **Biodiversity**

The land owned by Nova Sloga is not in or adjacent to any protected areas or areas of high biodiversity value. This is

why Nova Sloga's activities have no significant impact on biodiversity.

#### **Emissions, Effluents and Waste**

According to its activities, Nova Sloga is not required to measure its greenhouse gas emissions. The regulation defining this area is the Regulation on the Limits of Air Pollutants published in the Official Journal of the Republic of Serbia number 71.

Nova Sloga's activities resulting in indirect emissions, including our employees' daily commuting, business trips, etc.,

are insignificant compared to our other activities resulting in direct emissions or energy-related direct emissions.

Our cooling system uses a type of anti-freeze based on nutritive monopropylene glycol used in the food industry, which circulates within the system and does not evaporate and thus ends up in the atmosphere. In 2013, we loaded 1,000 kg of refrigerant into the system. Nova Sloga does not use any heating equipment, so there are no NOx or SOx emissions.

#### Wastewater

Process waters in our mineral water plant are directed to a deposit tank, including surplus mineral water from the bottling plant, so our process water in the deposit tank is diluted and neutralized, and then discharged into the local waterway. Water discharged from the deposit tank meets the relevant quality requirements, as confirmed by analyses conducted by the Public Health Institute. Sanitary water from the mineral

water plant is disposed of in a septic tank, which is evacuated by the Public Utility Company of the Municipality of Trstenik and further treated. The Refrigeration Plant discharges its water into the municipal sewerage system and such water is then treated at the town utility company. Wastewater analyses are conducted four times a year at the public health institutes in Kruševac and Kraljevo.

#### Total water discharge (m³)

	Mivela Plant		Refrigeration Plant		Total
*******	2012	2013	2012	2013	iotai
Sanitary water	604	630	422	466	2,122
Process water	1,453	3,290	5,778	8,164	18,685
Total:	2,057	3,920	6,200	8,630	20,807

#### Wastewater (m³)

Year	m <sup>3</sup>
2012	8,257
2013	12,550
Total	20,807

The amount of our water discharge in 2010 and 2011 was  $11,320~\text{m}^3$ , compared to  $20,807~\text{m}^5$  in 2012 and 2013. This increase in water discharge during this reporting period is a result of increased production in our fruit and vegetable processing plant. Increased amounts of fruits and vegetables result in increased consumption of process water used for washing fruits and vegetables before processing and for washing and maintaining our equipment and plants.

#### Waste

Solid waste resulting from our production and ancillary processes in our production plants is sorted at its source by type and disposed of in a designated place in accordance with the provisions of the Waste Management Act. The types of solid waste that may be used as secondary raw materials are cardboard, paper, nylon, PET and closures, vegetable wa-

ste, waste metal and used toner. All other waste is collected in municipal waste containers arranged across the factory area. Waste sold as secondary raw material is collected by a company registered for recycling, while municipal waste is collected by the Public Utility Company of the Municipality of Trstenik

#### Total amount of non-hazardous waste by type (kg)

Index number	Type of packaging	2012	2013	Total
150101	Paper and cardboard packaging	1,646	7,268	8,914
150102	Plastic packaging	3,828	7,654	11,482
	Total	5,474	14,922	20,396

During the preceding period, we disposed of 23,026 kg of non-hazardous waste, compared to 20,396 kg in 2012 and 2013. The volume of municipal waste disposed of in 2012 was 60  $\rm m^3$ , compared to 65  $\rm m^3$  in 2013. During the preceding reporting period, we disposed of 180  $\rm m^3$  of municipal waste in 2010 and 165  $\rm m^3$  in 2011. This decrease in the amount of municipal waste recorded in this reporting period is a result

of changes in our technological production process, i.e. the absence of vegetable waste that was generated by the fruit and vegetable processing plant. Nova Sloga does not generate any hazardous waste.

Nova Sloga did not record any spills of dangerous substances that may have an adverse environmental impact.

#### **Products and Services**

For the purpose of improving its environmental protection, Nova Sloga undertook the following activities during this reporting period:

- We reduced the dimensions of our thermo-shrinking foil for packaging 1.5 liter and 0.5 liter Mivela mineral water from 380 mm x 0.065 mm in early 2013 to 380 mm x 0.060 mm, and then to 380 x 0.045 mm and 340 x 0.045 mm by the end of 2013 for our 1 L and 0.25 L packaging.
- In 2013, we started to wrap our pallets using super-stretch foil, whereby we reduced our use of foil by 40% per pallet.
- After installing a compensation station in the Refrigeration Plant in 2012 to further decrease our energy consumpti-
- on, we also installed one in the Mivela mineral water plant in 2013. Their installation resulted in decreased electricity consumption in both plants.
- Analyses of our wastewater for both plants are conducted four times a year.

In 2010, the EKOSTAR PAK company from Belgrade, licensed for packaging waste management, assumed a contractual obligation to manage our packaging waste. Nova Sloga reports the amounts of its packaging placed on the market to Ekostar Pak on a monthly basis.

### Compliance

Nova Sloga complies with all environmental laws and regulations and no cases of non-compliance were recorded, which means that no sanctions were imposed either.

#### **Transport**

Nova Sloga outsources the transportation of its products, production material and members of its workforce to other companies.

#### **Environmental Protection Investments**

#### Total environmental protection expenditures and investments by type

2012	2013	
-	-	
-	-	
-	-	
67,092	59,945	
634	634	
8,660	7,750	
1,763	5,230	
78,149	73,559	
2012	2013	
1,235	2,404	
265	1,000	
2,532	3,968	
420	-	
4,452	7,372	
	67,092 634 8,660 1,763 78,149 2012 1,235 265 2,532 420	

### Planned Activities and main Objectives for 2014 and 2015

- purchase new containers suitable for the type of waste disposed of for the Mivela Plant;
- install and commission a new mineral water bottling line at the Mivela Plant;
- train its employees on waste management and environmental protection;
- build an artesian well within the Refrigeration Plant to reduce its water costs;
- prepare documentation for, implement and have certified its ISO 14001 system in 2014; and
- enter into a contract with an appropriate company that will dispose of and recycle a smaller amount (about 50 kg) of machine oil.

### **Meat and Meat Products**

# PIK Vrbovec d.d.

PIK Vrbovec – Mesna industrija d.d. is a joint-stock company engaged in the production and sale of meat and meat products headquartered in Vrbovec. According to our information for 2013, the company employed a total of 1,811 people (1,656 of them working at the Vrbovec location), of whom 946 persons work in production, 316 work in logistics, 93 work in maintenance, and 456 work in other departments. Compared to 2011, the number of employees increased by 16%. PIK Vrbovec operates as part of The Agrokor Group.

The total surface area occupied by PIK Vrbovec is 350,000  $\rm m^2$ , the production segment accounting for 80,000  $\rm m^2$  as follows: slaughterhouse – 15,000  $\rm m^2$ ; Fresh Meat Factory including its refrigeration plant – 25,014  $\rm m^2$ ; Processed Meat Factory – 18,560  $\rm m^2$ ; Meat Product Packing, Storing and Distribution Factory –10,000  $\rm m^2$ ; Durable Product Factory – 6,000  $\rm m^2$  (opened in 2012); and the rest occupies 5,400  $\rm m^2$ .

Our ISO 14001:2004 certified environmental management system was maintained and improved, as found during the supervisory audit conducted in 2012 and the recertification audit conducted in 2013. In January of 2013, PIK was awarded a Kosher certificate.

Our total production increased during the reporting period compared to earlier years (by 8% in 2012 and by 11.5% in 2013). Most of our products (up to 96%) are made at the PIK Vrbovec's site M.I. d.d., Zagrebačka 148, Vrbovec. Our subcontractors engaged for different product groups were Kudelić i Valvita – Valpovo (slaughterhouses), Klaonica Martinjak d.o.o., Danica M.I. d.o.o. (cans), Kras (prosciutto), Frelimo (pork rinds), Kutjevo (pork rinds and fat), Voštane (prosciutto), Dimes (Belje bacon pressing facility), and Petason (shaped frozen meat). To ensure uninterrupted supply of CEFTA markets, we began to produce our sausages and semi-durable meats at Dim-Dim in Banja Luka, Bosnia and Herzegovina.

During this reporting period, we were very much focused on separately collecting usable waste and finding possibilities for separate collection of bio-waste to reduce our amounts of municipal waste disposed of at landfills. In places where we had already introduced separate collection of packaging waste, we made efforts to increase our efficiency by increased supervision, training and internal audits, and we also introduced the tested collection method in places where it had not been used. We introduced separate collection of paper, cardboard and plastic (foil) packaging in PIK's Discount Store and in PC Osijek in 2012, and in PC Rijeka in 2013. In 2012, we started to separately collect bio-waste (waste resulting from the preparation of fruits and vegetables in the kitchen), which is treated through composting by a waste treatment organization (Eko Flor plus).

In July 2012, we put into operation our biogas plant Energija Gradec, located seven kilometers from PIK's headquarters, which made it possible for us to dispose of part of PIK's waste there. By the end of 2012, we had already begun to transport the contents of bovine digestive tracts to the biogas plant as animal by-product and category 2 materials. By changing our method of disposing of the contents of the forestomach, we reduced our water consumption (before this, we used water by withdrawing it from a collection basin) and our ground pollution (we avoided further disposal at the unimproved fertilization area of the Management Facility). In 2013, our biogas facility began to treat slaughterhouse waste, i.e. animal by-products and category 3 materials. Our biogas plant treated 30% of our category 3 materials, while a rendering plant (Agroproteinka d.d.) treated the rest as in the previous period.

We rehabilitated our old and unusable diesel tanks (31  $\rm m^3$  and 48  $\rm m^3$ ) in July of 2012. We cleaned our diesel tanks to a gas free degree. The mixture of diesel fuel, water and tank cleaning fluid was disposed of through a company engaged in hazardous waste management (Kemis Termoclean). Our tanks were collected to be recovered by a certified metal waste company (Metalprodukt). This location does not contain any more underground tanks, whereby we ensured full protection of soil and ground water where our former underground tanks used to be (next to the Transport Facility).

During this reporting period, we achieved the following objectives:

We completed our conceptual design to obtain a location permit for a wastewater treatment plant in June 2013. The design was reviewed by the Administrative Department for Physical Planning, Construction and Environmental Protection in Vrbovec without any comments in July 2013. Pursuant to the Integrated Environmental Protection Requirements Authorization, the time limit for reconstructing our internal sewerage and building our own WWTP was extended to July 31, 2014.

On December 24, 2013, the Ministry of Environmental Protection and Nature Protection issued its Integrated Environmental Protection Requirements Authorization, Class: UP/I-351-03/12-02/28; File Number: 517-06-2-2-1-13-40.

In June 2012, our EMS was subject to a supervisory audit by Bureau Veritas (no non-conformities were found, only 4 OBS). In April 2013, our ISO standards (9001 and 14001) were successfully recertified for the second time.

We did not install internal meters for monitoring our water consumption in our production departments, but completed our preparatory activities for their procurement and installation in 2013.



We prepared a report on the carbon dioxide emissions generated by our plants and provided a verified emissions report for 2011 to the Environmental Protection Agency. Information about our plant activities used to calculate emission units that will be allocated free of charge for the 2013-2020 trading period were provided to the Ministry of Environmental Protection and Nature Protection by March 31, 2012.

We procured and replaced a burner on a boiler to make combustion more efficient and to reduce our fuel consumption in the boiler room. According to the Power Plant Thermal Impact Reduction Study (ENING d.o.o.), we did the following:

- we installed a new burner on boiler BKG 60 A, factory no.: 12137 (1974) and thus reduced the power of the boiler from 5.1 to a maximum of 4 MW;
- we reduced the power of a burner already mounted on boiler BKG 100 A, factory no.: 19892, by limiting its max. power from 8,149 to 6,762 MW

The preparation of the relevant Study (Ening) and the reduction of installed boiler power (Eko plamen) cost HRK 401,969. The installed power of the power plant was thus reduced from 20,731 MW to 18,911 MW and PIK was excluded from

the ETS (greenhouse gas emission quota trading system) in 2012 and 2013. PIK requested of the Ministry to be exempted from ETS, due to the bad condition of its plants, and the reconstruction obligation aiming to reduce the installed capacity of boilers below 20 MW (a criterion for the requirements of trading GHG emission quotas). In early 2013, we received a Decree revoking PIK's permission regarding the greenhouse gas emissions from the Ministry of Environmental Protection and Nature Protection based on the reduction of the installed capacity in the heating boiler room facility. PIK Vrbovec was thus formally exempted from ETS, which should be underscored as the Republic of Croatia has been part of the EU ETS since January of 2013. The total investment was justified because it would cost PIK approximately EUR 300,000 to remain in ETS between 2013 and 2020. Having been exempted from ETS, we are now only required to pay an annual air emissions charge to the Environmental Protection and Energy Efficiency Fund (approximately HRK 100,000).

Because we invested in reducing the installed power of our boiler room, we did not install an automated boiler desalinization and blowdown system the purpose of which was to reduce our fuel consumption.

#### **Materials**

PIK Vrbovec does not use any indirect natural resources (non-renewable materials) to make its products, but only for its ancillary processes that are not part of the final product and for machine maintenance (lubricants).

#### Materials used by weight or volume - kg

Type of material used	2012.	2013.
Raw material	75.498.590	82.181.299
Ancillary process materials	630.148,00	804.299,90
Packaging materials	2.672.010	2.538.611
Total	78.800.748	85.524.210

- Raw material = livestock + imported raw material (fresh, frozen) + additives and condiments
- Ancillary process materials = liquefied gases for product packaging and maintenance + machine lubricants + cleaning products and chemicals used in production and maintenance
- The information used was received from the Planning and Analysis, Production and Maintenance Departments of Adria Group (responsible for washing our plants)

#### Packaging materials used by type

Type of packaging material	2012		2013		Channa implemented in 2010
	kg	%	kg	%	Changes implemented in 2013
Polymers	877.32	32.83	956.03	37.66	Switching to thinner foil for some products, e.g. from vacuum to flowpack
Paper / cardboard	1,511.69	56.57	1,348.05	53.1	We introduced crates instead of boxes
Metals (Al, Fe)	219.60	8.22	170.94	6.73	Seals (AI) are no longer used in production
Natural materials (wood, flax, collagen)	27.99	1.05	35.47	1.4	
Other (combined)	35.40	1.32	28.12	1.11	Production optimization
Total packaging	2,672.01		2,538.61		

In 2013, we used 5% less packaging than in 2012. The reasons for the reduction in packaging weight are provided in

the table. Although we used more direct materials than we did in earlier years (6% more than in 2012 and 8% more than

in 2013), our use of direct materials decreased proportionately per ton of total production compared to earlier years (by 1.9% in 2012 and by 2.7% in 2013). The company's total consumption of materials by type of product decreased compared to earlier years, as did our consumption of direct materials.

Recycled input material refers to cardboard packaging (all our cardboard boxes are made of 100% recycled paper, except for A 10 cardboard where the share of recycled fibers is 25-30%). In 2013, we used cardboard crates instead of cardboard boxes, which resulted in 31.77% less cardboard used annually. This means we placed 220,836 kg less cardboard on the

market. Multilayer polymer packaging materials (material necessary to retain all characteristics of a product throughout its shelf-life) cannot be replaced by recycled materials because, unlike standard packaging materials, biodegradable packaging meets all environmental requirements, but also shows functional weaknesses in terms of barrier and mechanical properties and thermal resistance. This is why we only use biodegradable materials for our disposable bags for the time being (shopping bags and bags for household waste), while the development of new bio-degradable materials as primary packaging and improvement of their functional properties are still being extensively studied.

#### **Energy**

The primary energy sources used by PIK to directly satisfy its energy needs is diesel fuel used to transport goods and members of the workforce and propane-butane (fuel for forklift truck, furnaces and pig singeing in absence of natural gas supply). The primary energy sources used by PIK to produce indirect forms of energy for its internal purposes are natural gas used for heating (steam, water) and ELHO (boiler room's alternative fuel), also used for heating.

## Direct energy consumption by primary energy source

Year	Fuel (GJ)	Natural gas (GJ)	Propane- butane (GJ)
2012	56,859.47	178,814.47	184.26
2013	57,897.26	166,729.33	98.57
Total	114,756.72	345,543.79	282.83

Fuel = diesel fuel + FLHO

#### **Primary energy consumption**

		2012		2013
Type of fuel	Fuel (m³)	Direct energy (GJ)	Fuel (m³)	Direct energy (GJ)
Natural gas	4,583,811	178,814.47	4,274,015	166,729.33
Extra light heating oil	5.9	199.13	7.5	253.14
Diesel fuel	1,562	56,660.33	1,589	57,644.12
Propane-butane	7,685	184.26	4,111	98.57
Total	4,593,064	235,858	4,279,723	224,725

#### Diesel fuel consumption by purpose (m³)

Purpose	2011,	2012	2013
Internal (tank)	25.047	29.424	25.815
Passenger cars	236.957	225.599	205.871
Freight vehicles	1,306.940	1,307.280	1,357.740
Total	1,569	1,562	1,589

After our total direct energy consumption increased during the preceding reporting period (by approximately 3%), this trend continued in 2012 (by 2.7%) compared to 2011, while our direct energy consumption in 2013 decreased by 4.7% compared to 2012. This decrease in energy consumption is a result of a 6.8% decrease in gas consumption in 2013 compared to 2012, and 3% compared to 2011. This decrease in gas consumption is mainly a result of our procurement of a new ultrasonic condensate discharge checker – Dr. Trap PM 301 (of the total of 96 discharge lines, 26 were found to be defective) and 26 discharge lines totaling HRK 91.992,88. We saved HRK

1,100,000 on gas in 2013 compared to 2012 (i.e.  $309,796~Nm^3$ ). In addition to the measured decrease in gas consumption, we also reduced our steam losses. Our annual consumption of direct energy per ton of product decreased compared to the preceding reporting period, especially in 2013 (16%) compared to 2012.

The only form of indirect energy externally supplied to PIK is electricity (as PIK makes its steam internally, it is not included in indirect energy).

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	117,158.42
2013	128,318.46
Total	245,476.88

Similarly to the preceding reporting period, our electricity consumption increased in 2012 and 2013 as a result of increased production, while our electricity consumption per ton of product decreased. Compared to 2012, our electricity per ton of product decreased by 9.5%.

#### Water

#### Total water withdrawal by source (m<sup>3</sup>)

Year	For process purposes	From a public water supply system	Total amount of all waters withdrawn
2012	567,760	133,320	701,080
2013	606,704	116,193	722,897
Total	1,174,464	249,513	1,423,977

Our water consumption increased by 9% in 2012 and by an additional 3% in 2013 compared to earlier years. Our consumption of water from a public water supply system recorded both in this and the preceding reporting periods increased by approximately 3% annually as a result of decreased consumption of process water (withdrawn from the mini accumulation lake Bajer). After a slight increase in water consumption per ton of product in 2012, it decreased by 9% in 2013 compared to 2012. In August of 2013, we installed and

put into operation new equipment for measuring our public water consumption (a new shaft, water meter, flow rate meter) for the purpose of modernizing our equipment and ensuring more accurate measurement of water input. This decrease in water consumption was also a result of defrosting our refrigerators in chambers 29, 30 and 31 by using hot gas instead of using water, as we did before, and by monitoring more closely the amounts of water used to wash our production plants.

### **Biodiversity**

The location of PIK Vrbovec is not in a protected area or an area of high biodiversity value, so its activities have no

impact on biodiversity.

#### **Emissions, Effluents and Waste**

# Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Electricity	25,503.02	27,932.34
Natural gas	8,946.47	8,319.67
Propane-butane	12.37	6.62
Fuel for transport	3,573.00	3,698.08
Cooling equipment (refrigerant)	165.41	290.74
Total	38,200.27	40,247.44

Our direct greenhouse gas emissions are generated from sources owned and controlled by PIK:

1. CO<sub>2</sub> emissions from the steam boiler room chimney - emissions resulting from combustion of gas or extra light heating oil (alternative fuel in absence of gas supply) - these emissions are consistent with the primary energy specified under EN3.

# Total annual CO<sub>2</sub> emissions from the boiler room chimney (t)

	Natural gas	ELHO	Total emissions	t CO <sub>2</sub> eq.
2012	8,930.15	16.32	8,946.47	8,946.47
2013	8,298.93	20.74	8,319.67	8,319.67

The emissions information derives from an estimate:  $CO_2$  (combustion emissions) (t) = fuel consumption (natural gas) (m³) x combustion amount (TJ/m³) x emissions factor (t  $CO_2$ /TJ) x oxidation factor.

The sources of information in the estimate formula are fuel consumption (according to supplier's bill), combustion amount (lower heating value of natural gas according to supplier's bill x 10-6 TJ/m³), emissions factor (according to Table 6 of the Guide\*, it is 56.1 t CO $_2$ /TJ for natural gas, 77.3 t CO $_2$ /TJ for ELHO, and 63 t CO $_2$ /TJ for LPG or propane-butane), and the oxidation factor (according to Appendix

VI-table-combustion emission measurement methods to the Guide\*, it is 1 for natural gas and ELHO).

\* Guide for the Preparation of the Plant Greenhouse Gas Emissions Monitoring Plan (MEPNP, September of 2009)

Our total annual  $CO_2$  emissions from the boiler room chimney decreased by 7% in 2013 compared to 2012 and by 2% compared to 2011. This decrease is a result of decreased gas consumption in 2013.

# 2. CO<sub>2</sub> emissions generated by forklift trucks and furnaces (propane-butane combustion)

3.  $CO_2$  emissions generated by PIK's vehicles used to transport products to the PC (refrigeration plant) and consumers and by vehicles used for internal transport of materials within the factory area.

Our  $\text{CO}_2$  emissions increased compared to preceding period as a result of increased production.

# Greenhouse gas emissions generated by vehicles (t CO<sub>2</sub> eq.)

Purpose	2012	2013
Internal (tank)	78.65	69.00
Freight vehicles	3,494.20	3,629.08
Total	3,573.00	3,698.00

Information used for diesel: density = 840 kg/m³, lower heating value = 0,043 TJ/t, emission factor = 74 t  $CO_2/TJ$ , GWP  $CO_2$  = 1

**4. Emissions resulting from system leakage:** fluorinated greenhouse gases (HFC (R 134 A) or blends of substitute substances (R 404 A, R 407 C, R 410 A).

#### Greenhouse gas emissions generated by cooling equipment

Type of equipment	Type of gas GWP	Type of see		2013		
Type of equipment	Type of gas	GWP	t/god,	t CO2 eq.	t/god,	t CO <sub>2</sub> eq.
Onboard cooling equipment	R404 a	3,700	0.0342	126.54	0.0268	99.16
(refrigerator trucks)	R134 a	1,300	0	0	0.002	2.6
	R404 a	3,700	0.0086	31.82	0.04825	178.525
Stationary cooling equipment	R407 c	1,600	0.0026	4.16	0.0026	4.16
(chambers, refrigerators)	R134 a	1,300	0	0	0.00327	4.251
	•••••••••••	1,700	0.0017	2.89	0.0012	2.04
Total			0.0471	165.41	0.08412	290.736

These cases of greenhouse gas leakage are a result of defects or maintenance of cooling equipment in refrigerator trucks and stationary equipment (chambers, air conditioners), mainly occurring at Zagrebačka 148, Vrbovec.

Equipment in PIK's refrigerator trucks is maintained and serviced by PIK Vrbovec (which holds a license from MEPNP, Reg. No.: 1075), while our stationary equipment has been serviced by the licensed servicer Uslužni obrt pokretni servis Frigo-elektro, as defined by the relevant agreement since 2012. The total amount of emissions generated by our cooling equipment (converted to  $\rm CO_2$  eq.) decreased in 2012 by 22% and increased in 2013 by 37% compared to 2011.

Our indirect greenhouse gas emissions related to our greenhouse gas emissions resulting from the generation of electricity owned and controlled by another organization (HEP).

#### Indirect CO<sub>2</sub> emissions

	2012	2013
Amount of electricity used by PIK (kWh)	32,544,005	35,644,016
CO <sub>2</sub> emissions resulting from electricity generation at HEP (t)	25,503.02	27,932.34

The figures relating to the  $CO_2$  emissions from HEP's power plants resulting from electricity generation were taken from HEP's 2011 Sustainable Development Report:

In 2011, HEP emitted 1 t of  $CO_2$  to generate 1,276.08 kWh of electricity

### Total greenhouse gas emissions (t CO<sub>2</sub> eq.)

	2012	2013
Direct emissions		
Boiler room	8,946.47	8,319.67
Vehicles	3,573.00	3,698.08
Cooling equipment	165.41	290.736
Forklift trucks, furnaces	12.37	6.62
Indirect emissions	25,503.02	27,932.34
Total	38,200.27	40,247.44

Out total GHG emissions increased by approximately 6% in 2012 and by 5% in 2013 compared to the preceding year.

#### Other relevant indirect greenhouse gas emissions by weight (total emissions resulting from transporting members of the workforce)

Year	t CO <sub>2</sub> e
2012	1,697
2013	1,677
Total	3,374

Our indirect emissions are a result of PIK's activities, although they were generated by sources owned or controlled by another organization or individual, namely by company cars used to transport our employees and by organized transport of our workforce members to and from work.

# Total greenhouse gas emissions resulting from transporting members of the workforce - CO<sub>2</sub> emissions (t)

Purpose	2012	2013
Company cars	603.00	550.27
Buses	245.81	419.83
Private cars	848.00	707.00
Total	1,696.81	1,677.10

Our emissions resulting from using company cars decreased by 5% in 2012 and by 8% in 2013 compared to earlier years.

As we are not in possession of exact figures about biodiesel consumption for the relevant bus services, the data is presented on a worst-case-scenario basis, as if only biodiesel were used

Our fuel consumption increased and so did our CO<sub>2</sub> emissions, by 66% in 2012 and by 71% in 2013 compared to earlier years. This is a result of Dubrava Bus introduction of the following bus services in 2012 in addition to the existing Vrbovec – Bjelovar service: Poljanski Lug – Vrbovec, Vrbovečka Dubrava – Vrbovec; in 2013, Čazmatrans also introduced the following new services: Vrbovec – city service, Križevci – Vrbovec, Lovrečka Velika – Preseka – Celine, Preseka – Rakovec – Gaj, and Samoborec – Luka.

Our employees commute to work using their private vehicles on a daily basis causing the following emissions: approximately 848 t/year (848 t CO $_2$  eq.) in 2012 and approximately 707 t (707 t CO $_2$  eq.) in 2013. This information is based on the average number of vehicles in PIK's parking areas (about 600 in 2012 and about 500 in 2013 each day) and approximated average fuel consumption per vehicle (about 71/100km), assuming that 50% of the vehicles use diesel and 50% use gasoline and that each vehicle drives 30 km a day on average.

#### **Wastewater**

#### Total water discharge

Year	Wastewater (m³)
2012	429,272
2013	450,869
Total	880,141

PIK discharges its wastewater via two wastewater collectors and two inspection & measuring shafts (IMS) into the public sewerage system of the town of Vrbovec:

(The figures relating to the total amount of CO<sub>2</sub> emissions per liter of fuel were taken from the general information available at wastewater.ee.undp.hr = about 2.4 kg of CO<sub>2</sub> per liter of gasoline and about 2.7 kg of CO<sub>2</sub> per liter of diesel)

The results provided by the organization reporting in the area of gradual phase-out of ozone depleting substances indicate its technological leadership and its competitive position in markets for products and services. All newly acquired equipment containing refrigerants is accompanied by a Statement that the product does not contain any ozone depleting substances as required by law (Ozone Depleting Substances Regulation, Official Gazette120/05). Our old equipment dating back to 1996 will be replaced by equipment not containing any ozone depleting refrigerant or the refrigerant in such equipment will be replaced by an appropriate non-ozone depleting substance no later than by the end of 2014.

#### Emissions of ozone depleting substances in 2013

Type of gas Leakage (t/ year) in 2013		ODP	CFC-11 equivalent
R22	0.0042	0.055	0.0000231

ODP stands for Ozone Depleting Potential.

#### Other relevant air emissions (in tons)

Year	NO <sub>2</sub>	CO	
2012	6.01	0.31	
2013	7.08	0.45	
Total	13.09	0.76	

This report provides information about the emissions generated by our boiler room chimney (there are three exhaust points from three boilers). The air emissions generated by the PIK Vrbovec factory location are measured and analyzed by Dvokut-ECRO, a company licensed for professional monitoring of air emissions by the Ministry of Environmental Protection. Our pollutant emissions were reviewed on the basis of a report on the measuring and analyses of pollutant emissions from stationary sources at the factory.

- DISCHARGE POINT A (IMS-1): wastewater from the slaughterhouse and the fresh meat and processing facilities,
- DISCHARGE POINT B (IMS-2): corral, disinfection stations wastewater.

Until December 24, 2013, the quantity and quality of our wastewater were determined on the basis of a water license allowing us to discharge partially treated wastewater into the public sewerage system (as of December 2013, they have been determined on the basis of our Integrated Environmental Protection Requirements Authorization). The quality of our wastewater is tested by a licensed laboratory (Križev-

ci Veterinary Institute) six times a year on both shafts. The quantity of wastewater is determined by continuously using water level meters mounted on both IMSs. Monthly readings and data processing have been outsourced to the licensed company Hidroing, Zagreb. Wastewater is pretreated using the following wastewater pretreatment equipment:

- sand traps (for precipitation water from parking and handling areas),
- grease separators, sand traps/grease traps (to remove grease and deposit materials at the end of collectors A and B).
- oil separators (for potentially contaminated precipitation water from parking areas),
- deposit tanks (for wastewater from corrals and wastewater from the truck washing stations).

#### Annual wastewater discharge by discharge point

Year	IMS 1	IMS 2	Total
2012	236,285	192,987	429,272
2013	261,198	189,671	450,869

#### Total annual pollutant discharge (t)

	Ar	nnual amount	of discharge	and transfer
Pollution indicators		2013	•••••••••••••••••••••••••••••••••••••••	2012
	IMS-1	IMS-2	IMS-1	IMS-2
BOD <sub>5</sub>	54.14	27.72	82.12	36.51
COD (dichromate)	165.56	82.79	167.76	102.27
Settleable substances	0.75	0.25	0.36	0.20
Non-evaporating lipophilic substances	7.85	3.36	14.21	8.50
Adsorbable organic halogens	0.05	0.02	0.03	0.02
Total chlorine	0.04	0.03	0.01	0.01

In late 2013, PIK was issued an Integrated Environmental Protection Requirements Authorization defining the wastewater pollution indicators to be tested in the future before and after we build our internal WWTP. By building its inter-

nal WWTP, PIK should meet the wastewater pollution parameters up to the level required for discharging water into a natural recipient.

#### Waste

Most waste generated in 2012 and 2013 was non-hazardous waste, some of which was sold or assigned to our interested employees for further treatment (plastic containers, wood-

en pallets and planks, metals). In 2012, we thus reduced the amount of non-hazardous waste to be recovered or disposed of by 21.6%, and by 10.7% in 2013.

#### Total weight of waste by type and disposal method

Treatment	Collected by	2012	2013
R	EKO FLOR-PLUS, MULLTRANS, METALPRODUKT, CE-ZA-R, Gumiimpex-GRP, CIAK, MUNJA , AGROPROTEINKA, POS – PLAST, PROTING HORVAT, ROTO TRANS, UNIJA PAPIR, DRAVA INTERNATIONAL, METIS (ARCUS EKOLOGIJA	782.11	861.7
D	EKO FLOR PLUS , KEMIS Termoclean	449.8	423.94
R	MI-VI MAZIVA , MAZIVA ZAGREB, FLORA VTC , S.T.R. AKUMULATOR, CIAK, MUNJA, CE-ZA-R	9.75	12.39
D	KEMIS Termoclean, CIAK, REMONDIS MEDISOM	10.42	1.611
		1,252.08	1,299.64
	R D	EKO FLOR-PLUS, MULLTRANS, METALPRODUKT, CE-ZA-R, Gumiimpex-GRP, CIAK, MUNJA, AGROPROTEINKA, POS – PLAST, PROTING HORVAT, ROTO TRANS, UNIJA PAPIR, DRAVA INTERNATIONAL, METIS (ARCUS EKOLOGIJA  D EKO FLOR PLUS, KEMIS Termoclean  MI-VI MAZIVA, MAZIVA ZAGREB, FLORA VTC, S.T.R. AKUMULATOR, CIAK, MUNJA, CE-ZA-R	EKO FLOR-PLUS, MULLTRANS, METALPRODUKT, CE-ZA-R, Gumiimpex-GRP, CIAK, MUNJA, AGROPROTEINKA, POS – PLAST, PROTING HORVAT, ROTO TRANS, UNIJA PAPIR, DRAVA INTERNATIONAL, METIS (ARCUS EKOLOGIJA  D EKO FLOR PLUS, KEMIS Termoclean  449.8  R MI-VI MAZIVA, MAZIVA ZAGREB, FLORA VTC, S.T.R. AKUMULATOR, CIAK, MUNJA, CE-ZA-R  D KEMIS Termoclean, CIAK, REMONDIS MEDISOM  10.42

R = recovery methods, D = disposal methods

The total amount of waste increased in both this and the preceding reporting periods, but the percentage of increase has decreased year after year. In 2012, we generated 7.3% more waste than in 2011, and in 2013 we generated 3.2% more waste than in 2012.

In 2012, we generated 50% more hazardous waste compared to 2011. This is mainly due to the hazardous waste generat-

ed while cleaning our underground fuel tanks (they were dug out and recovered after cleaning). In 2013, we generated 31% less hazardous waste than in 2012, and only 4% more than in 2011.

Such increasing amounts of separately collected non-hazardous and hazardous waste continue to increase in this period. In 2012, we generated 2.5% more waste than in 2011, and in 2013 we generated 7.2% more waste than in 2012.

Municipal waste: In 2013, we generated 2.6% less municipal waste compared to 2012. It was not possible to make a comparison against the preceding reporting period because municipal waste had not been weighed before February of 2011 (it was paid per m³).

The ultimate goal of the waste treatment processes performed at PIK is to achieve the maximum recovery (R) rate of separately collected waste in relation to overall waste disposal. Accordingly, we recovered 9.4% more waste in 2013 than

we did in 2012. In earlier periods, this increase was only 1%. Similarly, we reduced the amount of waste disposed of (D) by 7.5% in 2013 compared to 2012. The amount of municipal waste per ton of product recorded in 2013 constantly decreased compared to 2012.

Animal by-products (AB) are transported from the location by Agroproteinka and disposed of in its own rendering plant. Category 2 material (contents of bovine digestive tract) and some of category 3 material (slaughterhouse waste) are disposed of in the biogas plant operated by Energija Gradec d.o.o.

#### Total weight of Animal by-products (t)

				Animal by-	products		
Vrsta		2013 2012		2	201	11	
•	••••••••••	amount (t)	price (HRK)	amount (t)	price (HRK)	amount (t)	price (HRK)
Category 1 (iz proizvodnje)	Agroproteinka d.d.	1,450.01	137,078.68	1,418.45	468,087	1,720.59	567,794
Category 1 (masnoća iz masto- lova kolektora A)	Agroproteinka d.d.	155.53		178.62	58,945	239.10	78,903
Total cat. 1		1,605.54	137,078.68	1,597.07	527,031.78	1,959.69	646,697.37
Category 3	Agroproteinka d.d.	9,017.56	722,119.40	11,471.96	2,867,990	10,913.38	2,728,345
Category 3	Energija Gradec d.o.o.	3,924.66	737,836.64	0	0	•••••••••••••••••••••••••••••••••••••••	
Total cat. 3		12,942.22	1,459,956.04	11,471.96	2,867,990.00	11,592.31	2,728,345.00
Total cat. 2	Energija Gradec d.o.o.	2,075.66	114,161.30	246.82	0		
Total AB		16,623.43	1,711,196.02	13,315.85	3,395,021.78	13,551.99	3,375,042.37

In 2013, we treated a total of 30% category 3 materials at the biogas plant, while the rest was treated at a rendering plant (Agroproteinka). Irrespective of the increase in total AB by 25% in 2013 compared to 2012, the relevant disposal prices

decreased by 50% because category 3 has been a commercial category since September of 2013, which means that we sell it to licensed companies.

#### **Spills**

In 2012, we recorded fourteen, and in 2013 we recorded eight minor spills, mostly of hydraulic oil from trucks (transporting livestock) operated by our contractors within PIK (paved surfaces between the gate and the loading dock). All spills

were rectified by PIK's on-duty firemen who sprinkled the adsorbent across the area, while such oiled adsorbent was disposed of as hazardous waste under waste code 15 02 02\* (we disposed of 266 kg in 2012 compared to 154 kg in 2013).

#### **Products and Services**

PIK's activities undertaken to reduce its adverse environmental impacts:

· Packaging:

When selecting our packaging, we use our best efforts to use recyclable material, provided it meets all safety parameters required for storing meat and meat products. We mostly use cardboard/paper type of packaging material.

This is also a very valuable raw material and is very easily recyclable. They are followed by polymers: polyethylene, polypropylene, etc. Polymers can be recycled in Croatia, but large amounts are exported to China. Our third most used material is metal (aluminum and iron), also a very valuable recyclable material. Therefore, most packaging materials used for packaging PIK's products are recyclable materials.

What causes problems is purity of material (required by waste collecting/treating organizations), the required separate collection of packaging, and the method of collecting all such packaging from the market separately by type. Although this is a statutory obligation of the Environmental Protection and Energy Efficiency Fund, PIK also pays a packaging waste charge, although we witness on a daily basis that such packaging waste still ends up in landfills.

- We reduced our emissions of ozone depleting gases by replacing R22 by a non-ozone depleting refrigerant.
- We reduced the amount of waste resulting from wastewater pre-treatment we purchased two containers with double perforated bottoms for separating water when sludge from the grease trap is disposed of (decreased sludge disposal costs by up to 44.52% or HRK 32,920).
- Improved wastewater quality we plan to build a wastewater treatment plant and provide a point of discharge into a natural recipient by the end of 2014. As PIK's Management Board decided to treat wastewater up to the parameters required for discharge it into a natural recipient, PIK will substantially decrease its burden on the Luka waterway, the Lonja River, and ultimately on the Sava River.

 We reduce our amounts of hazardous waste by ordering reusable toner cartridges and leasing our computer printing equipment

In 2012, we collected 484 reusable toner cartridges, which was 39% less than in 2011. This is due to the fact that we replaced our old HP printers by new, more efficient Lexmark printers, which are able to print more pages using one toner cartridge, so the decrease in the total amount of toner cartridges collected is equal to the decrease in the amount of printing.

The number of toner cartridges collected in 2013 was even smaller because we implemented a different printing solution (corporate building) and have leased our printing equipment, so our new toner cartridges are supplied and old ones disposed of by the company from which we lease such equipment.

PIK Vrbovec does not recycle its products sold and their packaging materials after the end of their lifecycles.

### **Compliance**

In 2012 and 2013, no sanctions were imposed on PIK Vrbovec for non-compliance with any environmental laws or regulations.

### **Transport**

#### **Emissions by source**

Dumaga	t CO₂ equivalent		
Purpose	2012	2013	
Transport of goods			
Internal purposes	78.65	69.00	
Freight vehicles (refrigerator trucks)	3,494.20	3,629.08	
Forklift trucks	8.66	4.83	
Transport of workforce members			
Company cars	603.00	550.27	
Buses	245.81	419.83	
Private cars	848.00	707.00	
Total	5,278	5,380	

Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

	t CO <sub>2</sub> equivalent for diesel	t CO <sub>2</sub> equivalent for propane-butane	Total
2012	5,269.81	8.66	5,278.47
2013	5,375.18	4.83	5,380.01

The highest level of environmental impact was recorded for our  $CO_2$  emissions resulting from transporting goods (68% in 2012, 69% in 2013), most of this pertaining to our refrigerator trucks. They are followed by emissions generated by our employees' private cars (16% in 2012, 13% in 2013), emissions generated by our company cars (11% in 2012, 10% in 2013), and emissions resulting from transporting our workforce members by buses (5% in 2012, 8% in 2013).

## **Environmental Protection Investments**

### Protection expenditures and investments by type (HRK)

Costs of waste disposal, emissions treatment and rehabilitations	2012	2013
Air emissions charges (SO <sub>2</sub> . NO <sub>2</sub> )	1,458	1,458
Air emissions charges (CO <sub>2</sub> )	78,747	78,747
Air emission measuring	3,500	3,500
Water using charge and concession	105,589	92,025
Water protection charge	382,129	694,607
Wastewater treatment plant maintenance	70,000	30,000
Wastewater analysis and water level meter maintenance	51,362	40,828
Waste management costs	781,470	735,840
Waste analysis	24,228	17,359
Procurement of new equipment and maintenance of the waste management area	7,536	54,354
Packaging environment and EE waste	264,886	521,683
AB disposal	3,395,022	1,711,196
Environmental and sewerage maintenance	918,000	780,000
Technical services provided by certified environmental professionals	35,000	45,000
Total	6,048,927	4,806,597
Environmental prevention and management costs	2012	2013
Certification	26,250	26,600
Training and Education	1,560	862
Fire protection (firemen)	756,000	756,000
Watertightness testing	7,020	0
Idle operation - AEKS d.o.o. (emergency preparedness)	30,000	30,000
Total	820,830	813,462

### Planned Activities and main Objectives for 2014 and 2015

#### To improve our waste management system

(prevent pollution and minimize all types of waste)

- to reduce the amount of municipal waste per product unit by 5% compared to 2013;
- to reduce the amount of disposable waste plastic packaging per product unit by 2% compared to 2013.

The new printing method will be implemented across all offices in the factory in 2014 to prevent generating reusable and waste toner cartridges.

#### To minimize our water consumption and our use of sources and energy

Decrease in energy consumption in 2014 compared to 2013 in m<sup>3</sup> or in kwh/kg of processed product:

- · to purchase and install internal water meters;
- to reduce our water consumption on the process packaging washing machine by 2% compared to 2013;
- to repair the air pipeline within the factory;
- to reconstruct the low and medium voltage transformer station.

#### To maintain and improve our wastewater quality and to minimize the possibility of wastewater leakage

- to establish records of animal byproducts collected from slaughterhouse floors;
- · to reconstruct the relevant internal drainage system and the wastewater treatment plant.

## To minimize the possibility of environmental incidents and pollution and improve our emergency response

- to train 50 of our drivers in eco-driving;
- to comply with the Seveso II Directive and manage our harmful materials;
- to remove R22 refrigerant from the kitchen refrigerator;
- to move the valve separating part of Frigoscandia from the ammonia installation to a safer area.

#### To comply with the IPPC (Integrated Pollution Control) Directive

- · to design an IPPC implementation program;
- to prepare a BAT analysis and a gap analysis and assess our needs for resources.

#### To replace dangerous materials (and chemicals) by less dangerous and/or non-hazardous ones

· to check for the presence of asbestos and remove all asbestos-containing roofing materials from our roofs.

#### **HSE** management

- to implement an HSE management system;
- to extend the scope of our environmental management system to our sales centers (Osijek and Rijeka).

## Ice Cream and Frozen Food

# Ledo d.d.

Ledo, a leading producer and distributor of ice cream and frozen food in Croatia and the region, conducts its business on highly dynamic markets, most of them in countries that have joined the European Union a few years ago or are in the process of preparing to join it. These rapid changes pertain to the economic, technological, political, sociological and environmental aspects of our business. Sometimes these changes pose a threat to Ledo, while some provide it with an opportunity to improve its quality and performance, as well as its approach to sustainable development.

As a food company, Ledo aims to raise the level of awareness of the importance of choosing a healthy lifestyle by recommending healthy eating habits and developing public awareness of active care for one's own health. Ledo aims to maximize its environmental protection efforts by using natural production resources, by improving its collection and sorting of waste at its source, and by improving its technologies and work processes.

The company strives for continuous progress in terms of adhering to environmental standards, monitoring and complying with all applicable laws and regulations of the Republic of Croatia and the European Union, and aims to minimize its adverse environmental impacts by developing its business, thus meeting all its stakeholders' expectations.

By caring for the environment, Ledo assumes part of the responsibility for the sustainable development of the community in which it operates.

For its achievements in 2013, Ledo received a CSR award in the Responsible Environmental Management Policy and Practice category at the Fifth National Conference on Socially Responsible Business sponsored by the President of the Republic of Croatia, Prof. Ivo Josipović, PhD. We think of this award as a special recognition from the industry that recognized the efforts we used in providing top-quality products while minimizing any adverse environmental impacts, saving natural and energy resources, which encourages us to become even better in this area.

According to its plan for this reporting period, Ledo underwent audits of its integrated quality, safety and environmental management systems.

Ledo had set five objectives for the year 2012, two of which were fully attained (replacement of refrigerant in our chambers and reduction of water consumption). The remaining three objectives were not met for a reason and will be reallocated to the next period. We did not manage to reduce our electricity consumption by 0.5% because the summer was extremely hot, so we used more electricity to start and

operate our air conditioning system. We increased our steam consumption compared to the same period in the preceding year because of our new chocolate sauce production that requires steam, so we did not manage to reduce our steam consumption by 1% as planned. We did not meet our objective of reducing our fuel consumption by 0.5% in 2012 because we started to distribute other manufacturers' frozen products in addition to distributing our own products.

We had set five environmental objectives for 2013, three of which were attained: electricity consumption, steam consumption and water consumption. The refrigerant in our chamber was not replaced for a reason because we were relocating our cooling chambers during the relevant period and we did not manage to reduce our fuel consumption in 2013.

During the reporting period, we implemented all relevant environmental management programs, had our pressure vessels and safety valves gauged, preventively maintained our cooling system, disposed of hazardous and non-hazardous waste, conducted wastewater and sludge analyses, measured our environmental emissions, provided for appropriate ammonia management in accordance with the applicable regulations, performed regular maintenance and measuring, conducted exercises, conducted ammonia incident drills (in both 2012 and 2013) and complied with the applicable regulations on waste storage and disposal methods and conditions, established effective environmental protection cooperation with good partners familiar with Ledo environmental management system, and continuously trained our employees on environmental impacts by segment.

On March 12, 2013, an incident occurred in Ledo, at Čavićeva 9, Zagreb, namely ammonia vapors were discharged as a result of voltage variations in Peščenica. Our ammonia absorbing system, in which Ledo had invested HRK 1,500,000 in 2010, fully absorbed all vapors discharge. All employees were evacuated from the production area until the incident was resolved. Although this incident was not a pleasant occurrence, our incident departments and the relevant inspectorate found Ledo to have acted properly in terms of using its human and technical/material resources in case of an emergency, following air quality measuring, on which a relevant report was issued. Based on this incident, Ledo conducted an extraordinary audit of its ISO 14001:2004 system.



#### **Materials**

#### Materials used by weight or volume - kg

Type of material used	2012.	2013.
Raw material	20,754,802	19,869,824
Packaging materials	1,416,680	1,239,753
Total	22,171,482	21,109,577

Our consumption of raw materials and packaging materials was in line with the preceding reporting period. Significant

changes occurred in the family product segment where we reduced use of cardboard boxes and changed the packaging method, so that packaged products are now placed directly on pallets wrapped in thermo-shrinking foil.

Cardboard transport packaging (boxes) used is entirely made of 100% recycled paper.

### **Energy**

Ledo does not generate or sell any primary energy sources. The primary sources of energy purchased by Ledo for its internal purposes during the reporting period were fuel (diesel and gasoline) and natural gas. Fuel is used as a form of energy necessary for transport. To reduce our fuel consumption, we aim to drive more rationally, optimize our transport routes and regularly maintain our vehicles. Natural gas is used for making ice cream cones and for heating premises and water.

In 2012, the amount of diesel used for all types of transport (raw materials, finished products, equipment, etc.) was 1,254.54 t (54,359.22 GJ), while our total gasoline consumption was 7.35 t (329.28 GJ). In 2013, our total diesel consumption was 1311.80 t (56,840.30 GJ), while our total gasoline consumption was 35.40 t (1,585.92 GJ).

# Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Diesel (GJ)	Gasoline (GJ)
2012	54,359.22	329.28
2013	56,840.30	1,585.92
Total	111,199.52	1,915.20

Our total fuel consumption in 2012 decreased compared to 2011. However, our fuel consumption per ton of sold product increased by 8.28%. Our total fuel consumption in 2013 increased compared to 2012 as a result of more products sold and delivered. Our fuel consumption per ton of sold product increased by 0.03%.

Variations in the amounts of fuel used and the amounts of fuel used per ton of sold (delivered) product depend on the trends in delivering products to large stores and central warehouses supplied using large freight vehicles weighing in excess of 15 tons and outsourcing such services to other companies.

# Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Natural gas (m³)
2012	73,447.00
2013	69,548.00
Total	143,025.00

Direct energy supplied and used from energy sources external to Ledo includes electricity, steam, ammonia, refrigerants and liquid nitrogen.

Ledo uses electricity supplied by HEP to operate its machines and lighting equipment. Electricity consumption is monitored on the basis of the bills received. To reduce our electricity consumption, we monitor our electricity consumption and make plans for the amounts of energy and power needed on an annual basis.

In 2012, Ledo used 12,307.96 MWh (44,308.65 GJ) of electricity, compared to 11,555.30 MWh (41,599.07 GJ) in 2013.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	44,308.65
2013	41,599.07
Total	85,907.72

Out total electricity consumption increased in 2012 compared to 2011 as a result of an increase in the total amount of products made (we started producing readymade meals and process chestnuts). Our electricity consumption per ton of product increased by 1.22% as a result of an extended period of extremely high temperatures during the summer when we used more electricity to start and operate our air conditioning system.

In 2013, we reduced our total electricity consumption compared to 2012. Our electricity consumption per ton of product

decreased by 1.05% as a result of technological process optimization and improvement (rational use of machines, devices and equipment) and production process improvement (larger batches, less interruptions). By optimizing our use of cooling chambers and facilities, we minimized our energy losses, which resulted in more efficient storage, loading and transporting processes. By installing highly efficient lighting equipment featuring sensors, we also contributed to minimizing our electricity consumption. Continuous training and awareness programs intended for our employees have played a major role in our rational use of electricity.

Steam supplied to Ledo by the Heat Plant is used to heat water using heat exchangers for technological process purposes and for heating all premises. Our consumption is monitored on the basis of meters provided on site. We reduce our steam consumption by requiring technological discipline in production and by optimizing the heating temperature.

The total amount of steam used in 2012 was 6,696.45 t, compared to 6,211.97 t in 2013.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Steam (t)
2012	6,696.45
2013	6,211.97
Total	12,908.42

Our total steam consumption was insignificantly lower in 2012 than in 2011. Our steam consumption per ton of product decreased by 2.54%.

In 2013, we reduced our total steam consumption compared to the preceding year as a result of installing a steam condensate system to heat our sanitary water and as a result of less cold days. Our steam consumption per ton of product decreased by 2.24%.

Ammonia is used as refrigerant in our closed primary cooling system. The system is designed to be operated from a central control system (compressor station control boars) or manually. The tanks and pipelines within this system contain approximately 12 t of ammonia. The system was not replenished in 2012 and 2.50 t of ammonia was loaded into it in 2013.

Liquid nitrogen is used in our production process for direct ice cream freezing. In 2012, we used 458.74 t, compared to 476.89 t in 2013.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Liquid nitrogen (t)
2012	458.74
2013	476.89
Total	935.63

In 2012, our total consumption of liquid nitrogen increased compared to the preceding reporting period as a result of increased production. In 2013, our liquid nitrogen consumption additionally increased by 3.81% compared to the preceding year as a result of increased ice cream production using liquid nitrogen for ice cream freezing.

#### Water

In addition for drinking, Ledo uses water as a raw material (ice cream, dough, readymade meals), as process water, as cooling water and as sanitary water, while some of it evaporates from evaporation condensers.

We also monitor our water consumption on the basis of our program for monitoring water consumption by using water

meters and train our employees in rational use of water. We also monitor our water consumption when no water consuming equipment is activated to ensure that our internal water supply system is watertight.

In 2012, Ledo used 91,072.00  $\mathrm{m}^3$  of water, compared to 86,572  $\mathrm{m}^3$  in 2013.

#### Total water consumption (m³)

Year	Process water	Cooling water	Sanitary water	Total onsumption
2012	61,771	17,348	11,803	91,072
2013	65,972	16,138	4,226	86,572
Total	127,743	33,486	16,029	177,644

In this reporting period, we recorded, as we did in the preceding reporting period, a continuing downward trend in water consumption, resulting from more rational use of water (reduced consumption of sanitary and cooling water resulted in a decrease in total consumption of this resource).

The water reusing trend continues to grow during this reporting period, totaling 20,000  $\rm m^3/year.$  After being used, some of the water is reused in the process of cooling the evaporation condensers. We continue to use our best efforts to maximize our reuse of water for the purpose of optimizing and rationalizing our water consumption.

#### **Emissions, Effluents and Waste**

#### Direct greenhouse gas emissions

Stationary source emissions:

In 2012, the amount of our  $CO_2$  emissions resulting from natural gas combustion in the ice cream cone furnace was 136.68 t  $CO_2$ , calculated on the basis of the total amount of natural gas used and the discharge factor. We calculated our  $CO_2$  emissions for 2013 (129.42 t) using the same principle.

Emissions resulting from transport:

For our transport purposes, we use passenger cars, light commercial vehicles and heavy freight vehicles. In 2012, we used 391 vehicles, compared to 310 in 2013.

# Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Diesel	3,324.52	3,476.27
Gasoline	17.65	84.95
CO <sub>2</sub> equivalent	3,342.17	3,561.22

Our  $CO_2$  emissions (in t  $CO_2$  per L of fuel) resulting from transport (of raw materials, finished products, equipment, etc.) were estimated on the basis of the CORINAIR manual (EMEP/EEA Emission Inventory Guidebook 2009).

Minor variations were recorded in our diesel consumption over the past four years, which may be associated with the rates of using our vehicles. Before 2013, we recorded a decreasing trend in our gasoline consumption, but recorded a significant increased afterwards as a result of using rental cars powered by gasoline.

# Other relevant indirect greenhouse gas emissions by weight

Year	t CO <sub>2</sub>
2012	136.68
2013	129.42
Total	266.10

Our total  $CO_2$  emissions have been measured since 2011 when we moved our ice cream cone plant to Čavićeva 9. During the reporting period, we recorded a continuing decrease in the amount of our  $CO_2$  emissions as a result of less hours of operation compared to the initial year and as a result of blowing fresh air into the plant.

Refrigerants are used by our cooling equipment. To minimize our adverse impacts on the ozone layer and the climate, we have gradually replaced all controlled substances present in our cooling equipment by appropriate substitutes during its maintenance.

R12 refrigerant was entirely removed from our cooling equipment. Most of R22 was replaced by environmentally acceptable refrigerants and we plant to phase it out completely by 2015.

When purchasing new cooling equipment and air conditio-

ners, we ensure that such equipment uses environmentally acceptable gases such as R134A, R404A, R407, R410, or R507.

During the first eight months of 2012, we used 1,567.191 t of refrigerant to replenish our cooling equipment. We later outsourced our cooling equipment and air conditioning maintenance activities to an external organization.

# Emissions of ozone-depleting substances by weight

Refrigerant	2012	2013
R 22	49.02	33.00
Total:	49.02	33.00
R 134 A	184.95	0.00
R 404 A	998.52	618.50
R 407	1.40	0.00
R 507	318.81	0.00
R 410	14.50	0.00
Total:	1,518.18	618.50
Grand total	1,567.20	651.50

This decrease in the amount of refrigerant recorded during the reporting period was a result of replacing R22 by an environmentally acceptable refrigerant.

According to the Regulation on the Limits of Pollutant Emissions from Stationary Sources (Official Gazette 117/12), we conduct measurements of our NOx and CO emissions (and assign fume numbers) resulting from natural gas combustion in the ice cream cone furnace and compare such values against the required limits for small heating equipment (Article 100 of said Regulation). Our emissions are determined by occasional measuring conducted at least once every two years (Article 112 of said Regulation).

Ledo measured the amounts of its pollutant emissions from stationary sources. The obtained NOx and CO emission concentrations and the fume codes were in compliance with the required limits. The amount of pollutant emissions for 2012 was determined on the basis of calculating the total amount of natural gas used and the waste gas factor. The results for 2013 were obtained on the basis of measuring conducted on April 9 and the total amount of natural gas used.

# Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	СО	$NO_2$
2012	0.025	0.245
2013	0.013	0.029
Total	0.038	0.274

Compared to the 2011-2013 period, we recorded a decreasing trend in those years when we did not have a licensed laboratory to conduct measuring. No formal measuring was conducted in 2012, so this information was obtained on the basis of the formula provided by the Environmental Protection Agency.

#### Wastewater

Wastewater is discharged from Ledo facilities via two connections to the public sewerage system of the City of Zagreb as mixed (inspection & measuring shaft 1) and sanitary (refrigeration equipment maintenance) water. Process wastewater is treated by neutralization and mechanically in the deposit tank and separator before being discharged into the public sewerage system. All sanitary water from the production and refrigeration equipment maintenance facilities is discharged into the public sewerage system without any prior treatment. Wastewater is then channeled from the public system into the city treatment plant before being discharged into the relevant recipient (a natural waterway).

In 2012, our total water discharge of mixed wastewater measured on inspection & measuring shaft 1 was  $67,530~\text{m}^3$ , compared to  $81,125~\text{m}^3$  in 2013.

Wastewater sampling is conducted according to the water license on the inspection & measuring shaft, immediately

before discharging it into the public sewerage system of the City of Zagreb. Wastewater treatment performance and wastewater environmental emissions are measured and wastewater samples are collected in accordance with the Limits Ordinance and the water license. Wastewater quality and flow rates are measured by licensed institutions.

#### Total water discharge

Year	Wastewater (m³)
2012	67,530
2013	81,125
Total	148,655

Our amounts of wastewater show a variable trend as they depend on the technology used for each production process and the amount of precipitation in a year.

#### Wastewater analysis

Parameter	2012 by quarter				2013 by quarter			
	I	II	III	IV	I	II	III	IV
Mixed wastewater flow rate – level meter, in m³/quarter	15,453	21,470	19,189	11,418	10,856	20,586	36,069	13,614

D	2012 (six-month periods)		2013 (six-month periods)	
Parameter	I (22/3/2012)	II (22/11/2012)	I (20/2/2013)	II (17/10/2013)
Mixed wastewater flow rate (L/sec)	5,700	4,700	6,500	6,500
Dissolved oxygen content (mgO2/L)	5,600	9,600	13,500	10,000
BOD <sub>5</sub> (mg O <sub>2</sub> / lit) <b>maks, 250</b>	26,000	60,000	26,000	25,000
COD – dichromate (mg $O_2$ / lit) max. 700	68,000	135,000	86,000	154,000
Total suspended substance (mg/L)	26,000	26,000	14,000	10,000
Total dry evaporation residue (mg/L)	602,000	552,000	195,000	524,000
рН <b>6.5-9.5</b>	7,000	7,100	7,000	6,700
Visible waste substance	None	None	None	None
Color	None	None	None	None
Water temperature (°C) max. 45	15,000	15,600	16,000	16,100
Settleable substances max. 10	0,100	0,100	0,100	0,1000
Total oil and grease (mg/lit) <b>max. 100</b>	1,000	4,000	3,000	1,000
Mineral oil (mg/lit) <b>max. 30</b>	0,140	0,020	0,067	0,068
Anionic detergent (mg/lit) <b>max. 10</b>	0,082	0,173	0,074	0,317
Non-ionic detergent (mg/lit) <b>max. 10</b>	0,057	0,085	0,051	0,183
Sulfates (mg/lit)	34,000	56,000	33,000	26,000

The wastewater analysis results are in compliance with all water license requirements relating to discharging water into a public sewerage system and in accordance with the applicable regulations of the Republic of Croatia.

Having optimized and automated our technological process and automatically controlled it, we minimized our organic discharge

and improved the quality of our process wastewater discharge. Before using cleaning products, we mechanically clean all working areas, floors and walls and use all cleaning products and disinfectants in a controlled manner. Some of the process wastewater resulting from our CIP cleaning activities is treated by neutralization and all wastewater is mechanically treated before being discharged into the public sewerage system.

#### Waste

Ledo sorts its waste at its source, separately collects it by type, and temporarily stores it in a designated area. Such waste is collected by an organization licensed for waste collection, transport, intermediation, treatment, recovery or disposal. In 2012, we disposed of eleven types of hazardous

waste totaling 37,110,667 t, twelve types of non-hazardous waste totaling 374,503.72 t, and 523,280 t of municipal waste. In 2013, we disposed of eleven types of hazardous waste totaling 45.14 t, ten types of non-hazardous waste totaling 342.80 t, and 500.24 t of municipal waste.

#### Total weight of waste by type and disposal method (tons)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R	Hamburger, Eko Flor, Agroproteinka, Kemis, Gumiimpex, Sava promet, Unija nova, Makromikro, Rol-Bo	374.50	342.80
Hazardous waste	D	Ciak, Flora VTC, CE-ZA-R, Kemis, Rijekatank	37.11	45.14
Municipal waste		Čistoća d.o.o.	523.38	500.24
Total			934.89	888.18

The amounts of waste were provided by the respective operators.

Although the amount of municipal waste increased during this reporting period compared to the preceding reporting period, a decrease by 4.40% was recorded in 2013 compared to 2012. This is a result of more rational use of raw materials and packaging materials in our production process.

The amount of paper and cardboard packaging decreased by 6.21% in 2012 and increased by 6.28% in 2013. The amounts of separated paper and cardboard packaging vary depending on the amount of packaging material in which our raw materials arrive and on the method of packaging finished products during the production process. In 2012, we started packaging our finished products in thermo-shrinking foil instead of cardboard transport boxes, whereby we reduced the amount of waste packaging that would have resulted from its non-compliant handling. In 2013, the amount of this type of waste increased because of increased amount of raw material packaged in paper/cardboard packaging.

The amount of separated plastic packaging decreased compared to the preceding reporting period. In 2013, the amount of plastic packaging increased by 32.71% as a result of increased production of products that are packaged in thermo-shrinking foil as transport packaging instead of cardboard boxes. One of the ways to reduce the amount of plastic packaging is to make appropriate arrangements with our suppliers. Whenever possible, delivery is arranged in reusable packaging.

We aim to reduce our waste amounts by continuously training our employees in proper waste sorting and separation by type and source. Such training also aims to raise our employees' awareness of the importance and methods of environmental protection.

#### Spills

As it did in the preceding reporting period, Ledo has internal regulations in place on how to act in case any substances that may have an adverse environmental impact spill. We presently have six internal documents applicable at the company level: the Operating Plan of Intervention Measures in Case of Extraordinary and Sudden Water Pollution, the Operating and Maintenance Plan for Sewerage Structures and the Wastewater Treatment Plant, the Rules for Disposing of all Types of Process Waste and Sludge resulting from Wastewater Treatment, the Operating Plan of Environmental Protection Interventions, the Assessment of Risk of Disasters and Major Accidents to People, Tangible and Cultural Goods and

the Environment, and the Operating Protection and Rescue Plan.

We did not record any spills of chemicals, oil or fuel in this or the preceding reporting periods. We undertake additional measures and initiatives to reduce our adverse environmental impacts by regularly having our cooling system gauged, tested and periodically inspected. Our cooling equipment is regularly inspected and maintained and our cooling plants and cooling equipment are checked for water-tightness and properly treated in case it needs to be disposed of.

#### **Products and Services**

For the purpose of minimizing our losses and costs, we control our consumption of raw materials and packaging by optimizing our technological process, systematically training our employees, optimizing our production batches, rationally using our raw materials in powder or liquid form, and adjusting our packaging materials to each type of product (we reduced the dimensions of the transport boxes used for each type of impulse ice cream and use thermo-shrinking foil instead of cardboard boxes for certain family products).

Considering the adverse environmental impact of greenhouse gas emissions, all new vehicles ordered must comply with the presently applicable Euro standards and be powered by sulfur-free fuel according to DIN EN 590. All Ledo vehicles are regularly maintained and serviced and routes are optimized on an annual basis. In 2012, we discontinued seven Euro 3 freight vehicles and purchased seven new Euro 5 freight vehicles featuring a start-stop option that turns the engine off during short stops. In 2013, we approved an order of two new Euro 5 vehicles featuring a start-stop system. During the same period, we discontinued four Euro 2 freight vehicles.

### **Compliance**

All inspections conducted in 2012 and 2013 resulted in positive findings and no fines or any other non-monetary

sanctions were imposed on Ledo for non-compliance with any environmental laws or regulations.

#### **Environmental Protection Investments**

#### Total environmental protection investments and expenditures (HRK)

	2012	2013
Waste disposal, emissions treatment and rehabilitation costs	1,809,224.42	1,745,013.71
Environmental prevention and management costs	59,746.26	66,386.89
Total environmental protection expenditures and investments	1,868,970.68	1,811,400.60

Our environmental prevention and management costs incurred during this reporting period were much lower than they were in the preceding reporting period because we had no major investments in our environmental prevention and pro-

tection system. Our environmental prevention and management costs in this reporting period (2012-2013) were roughly the same.

### Planned Activities and main Objectives for 2014 and 2015

Our primary objectives set for the next period are to improve our waste management system and further reduce our energy consumption per product unit. By improving and optimizing our technological processes, we plan to reduce our electricity consumption per ton of product in 2014 by 3% compared to 2013. During the same period, we plan to reduce our water consumption per ton of product by 3% and reduce our steam consumption per ton of product, also by 3%.

As the company's environmental management objectives are defined on an annual basis, the objectives for 2015 will be defined at the end of this calendar year.

We are planning further development of our human resources by providing training opportunities all year round. Such trainings will include topics relating to actions to be taken in case of incidents in accordance with our internal operating plans, operational training in the area of environmental protection (wastewater, actions to be taken in case of minor incidents: spills of acid, oil, etc.), and topics based on the requirements of the ISO 14001:2004 international standard (assessment of environmental aspects and identification of significant environmental aspects).

## Ice Cream and Frozen Food

# Frikom d.o.o.

Frikom developed from an experimental frozen food plant and a frozen dough and ice cream plant established by the Industrial Technology Institute within the PKB Institute. International Finance Corporation in former Yugoslavia managed to make Unilever and International Finance Corporation in Washington interested in the project, which resulted in the establishment of Frikom in June 1976. Pursuant to the purchase agreement entered into in 2003, Frikom became a joint-stock company, with Agrokor of Croatia as its majority shareholder. In September 2013, Frikom changed its legal form to a limited liability company and the company was acquired by Ledo. Its production plants are located at Zrenjaninski put b.b., Belgrade, including an ice cream production plant, a plant for processing and packaging frozen vegetables, and a frozen dough production plant. Frikom operates a network of four distribution centers and uses 140 delivery vehicles and over 52,000 cooling devices.

#### Frikom holds:

- a quality management system certificate according to the requirements of ISO 9001:2008; certification body: Quality Austria; certification date: December 16, 2008; certificate number: 07576/0; certificate expiration date: December 15, 2014;
- a HACCP certificate; certification body: Quality Austria; certification date: June 12, 2007; certificate number: 00133/0; certificate expiration date: June 3, 2016;
- a food safety management system certificate according to the requirements of ISO 22000:2005; certification body: Quality Austria; certification date: April 12, 2010; certificate number: 00082/0; certificate expiration date: June 3, 2016.
- a Global GAP (Good Agricultural Practice) certificate; certification body: ISACert, first certification date: October 12-13, 2010; last certification date: September 12-13, 2013; certificate number: 137543; certificate expiration date: November 7, 2014;
- an environmental management system certificate according to the requirements of ISO 14001:2004; certification body: Quality Austria; certification date: June 6-7, 2011; certificate number: 01490/0, certificate expiration date: July 3, 2014;
- an occupational health and safety management system certificate according to the requirements of BS OHSAS 18001:2007; certification body: Quality Austria, certification on date: June 6-7, 2011, certificate number: 00612/0; certificate expiration date: July 3, 2014.

As part of our environmental management system, we regularly monitor and measure our energy and water consumption, wastewater and air quality, and manage our waste in a systematic and planned manner with a special emphasis on hazardous waste flows and special waste flows. We continuously monitor all applicable regulations and align our business with their requirements.

During the reporting period, we continued to monitor the effects of our measures undertaken as part of our clean production project, while constantly aiming to optimize our use of natural resources. For this purpose, we undertook numerous measures to minimize our losses and improve our monitoring of natural resource consumption and thus provided for better control of all processes within the factory. We overhauled the main steam divider and purchased a steam meter for the factory boiler room and the blanching machine in the vegetable processing plant. We automated the chlorine station within the factory's internal plumbing system and thus provided for better control in managing our production process and drinking water disinfection. We reconstructed our condensate return line at the ice cream blend preparation department and thus achieved savings on water and energy. The resulting water savings amount to approximately 1,300 m<sup>3</sup> annually. We reconstructed the pipeline in the chemical water preparation department and thus provided for more security in water supply and reduced the likelihood of any accidents. We established better control of our waste management activities with a special emphasis on the management of hazardous waste and its ultimate disposal that will be most acceptable in the context of environmental protection. We improved our cooperation with waste collecting operators, thus enabling the free-of-charge use of over 60 containers for separating secondary raw materials and better waste sorting at the source, as well as its appropriate ultimate disposal.

As regards our objectives set for 2012 and 2013, we achieved the following:

- 1. We entered into a contract with the Belgrade Paper Mill, which provided 60 containers to Frikom to be used for separating secondary raw materials and a paper, cardboard and nylon baling press. In addition, BiS Reciklažni centar, with which we have a contract in place for collecting waste light bulbs, provided a container for sorting and disposing of that type of waste. We thus provided for improved waste collection.
- 2. We reconstructed the steam meter in the boiler room to control the amounts of steam generated.



- We reconstructed our condensate return line in the ice cream blend preparation department to reduce our consumption of fluids and energy.
- 4. We reinstalled our old flow rate meters at the entrance to the production plants.
- 5. We reconstructed the pipeline in the chemical water preparation department to secure our water supply and minimize the possibility of any accidents.

On the other hand, we did not provide for the collection of plant waste and establish cooperation with a biogas plant because no biogas plants were built in the surrounding area. The reconstruction of the wastewater treatment system was not completed and this remains a priority for the next period. We did, however, begin to prepare the engineering and technological designs and chose a wastewater treatment technology, technical concept and a location for the wastewater treatment system. The construction start date was postponed due to the planned enlargement of our production capacities, which will significantly affect the characteristics and capacity of the treatment plant.

#### **Materials**

The materials used in our production processes are natural gas used to generate steam for our production processes, raw materials, packaging, oil and lubricants, spare parts, fuel (ED, D2), and mineral fertilizer and plant protection products (insecticide, fungicide, herbicide) used in agricultural production.

#### Materials used by volume - m<sup>3</sup>

Type of material used	2012.	2013.
Natural gas	1,578,474	1,797,574
Fuel (ED, D2)	148	152
Total	1,578,622	1,797,726

Compared to the preceding reporting period, we recorded a decrease in our average consumption of materials used. Our consumption of natural gas and fuel decreased insignifican-

tly (by 1%), while our other materials decreased by 15.6%. This is partly a result of the fact that we discontinued using our own farmland and started using contractors in 2013, which is why we stopped using mineral fertilizer and protective agents.

#### Materials used by weight or volume - kg

Type of material used	2012.	2013.
Raw material	23,614,701	21,688,670
Ancillary process materials	532,147	477,031
Packaging materials	2,850,861	2,813,500
Total	26,997,709	24,979,201

As regards recycled materials, Frikom uses cardboard packaging/transport boxes partly made of recycled cardboard. This packaging is used as secondary packaging to transport all types of products.

### **Energy**

Non-renewable energy sources used by Frikom are natural gas used to generate steam in our internal boiler room (for our production processes and to heat the factory in winter months) and fuel – ED, BMB and LPG used to transport products and, to a minor extent, to transport our workforce members.

# Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)	LPG (GJ)
2012	38,655	94,733	8.2
2013	37,198	93,498	17.2
Total	75,828	188,231	25.4

#### **Energy consumption per unit of product**

Year	Natural gas (m³/t)	Fuel (I/t)
2011	72.99	45.40
2012	60.18	36.87
2013	55.72	38.83

Our natural gas consumption per product unit decreased by 17.55% in 2012 and by 23.66% in 2013 compared to the preceding reporting period. Our fuel consumption per product unit decreased by 18.97% in 2012 and by 14.66% in 2013

compared to the preceding reporting period. This decrease is a result of replacing some of our diesel powered vehicles by gas powered vehicles, by downsizing our fleet, and by better organizing our transport in the field.

Indirect energy consumption represents the amount of electricity supplied and used from non-renewable energy sources, which we use for all our production and ancillary processes in the factory.

Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	73,203
2013	74,554
Total	147,757

#### Electricity consumption per product unit

Year	Electricity (kWh/t)
2012	504.16
2013	481.41

Our electricity consumption per product unit decreased by 6.31% in 2012 and by 10.36% in 2013 compared to the preceding reporting period, i.e. compared to 2011.

#### Water

The total amount of water used by the factory is obtained from our own source, by withdrawing ground water from six wells located within the factory area.

#### Total water withdrawal by source (m³)

Year	Total water withdrawal from Frikom sources
2012	485,634
2013	591,910
Total	1,077,544

#### Water consumption per product unit

Year	Water (m³/t)
2012	12.03
2013	13.76

Through continuous monitoring of water withdrawal and the amounts of water used and discharged, as well as through overhauling our present installations and equipment and replacing them with new ones, we achieve savings and establish control over water consumption thus continuing our efforts to reduce our consumption of and save water. Our total water consumption for this reporting period increased by 15.7% compared to our total water consumption in the preceding reporting period as a result of increased production volumes. Our water consumption per ton of product decreased by 9.07% in 2012 and increased by 4% in 2013 compared to our consumption per ton of product in the preceding reporting period. This increase in water consumption per ton of product in 2013 is a result of changing how we measure our water consumption, i.e. moving the measurement point from the entrance to the plumbing system to the exit from the factory. This change is a result of insufficient accuracy of our formerly used measurement instrument.

### **Biodiversity**

Frikom does not have any owned or leased land in or adjacent to any protected areas or areas of high biodiversity value.

### **Emissions, Effluents and Waste**

Direct greenhouse gas emissions in Frikom are a result of natural gas and fuel combustion, while indirect emissions are a result of using electricity.

# Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO₂ eq.)	2012	2013
Production plants	1,990	1,975
Fuel for transport	1,095	1,054
LPG	84	176
CO <sub>2</sub> equivalent	3,169	3,205

Our total greenhouse gas emissions decreased by 9.2% in 2012 and by 8.17% in 2013 compared to the preceding reporting period, while our total production increased by 12.1% in 2012 and by 19.5% in 2013. This decrease in greenhouse gas emissions is a result of using less energy during the reporting period.

# Other relevant indirect greenhouse gas emissions by weight

Year	t CO <sub>2</sub>
2012	504
2013	502
Total	1,006

Emissions resulting from our other activities are emissions resulting from our employees traveling to and from work and business trips and are not substantial or subject to significant decreases as a result of changes in the organization's activities.

Freon is used as refrigerant in our cooling equipment (cooling displays, refrigerator trucks, chambers, air conditioners). In 2012, we used a total of 2.20 t of Freon to replenish our cooling equipment. 0.076 t of this amount was R11, R12 and R22 refrigerants. In 2013, we used 1.61 t of Freon to replenish our cooling equipment. 0.035 t was R11, R12 and R22 refrigerants. R11, R12 and R22 are being phased out and are no longer supplied. The amount presented in this Report was supplied earlier and is used to replenish a small number of old devices.

The amount of R11, R12 and R22 used decreased by 42% in 2012 and by 73.1% in 2013 compared to the amount of such refrigerants used in the preceding reporting period.

The total amount of refrigerant used during the relevant reporting period was roughly the same as that in the preceding reporting period.

# Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	PM10	NO <sub>x</sub>	CO
2012	0.30	28	5
2013	0.34	26	6
Total	0.64	54	11

The emissions generated by the organization are a result of combustion of natural gas and fuel (ED, BMB, LPG) used by the company for its production and distribution purposes and relate to our emissions of NOx, PM10 and CO. The quality of exhaust fumes resulting from natural gas combustion in the factory boiler room is determined by having a certified operator measure our pollutant emissions as legally required and ordered by a competent inspector. Such measuring is on an annual basis, which is consistent with the sizes and capacities of our boilers.

#### Wastewater

#### Total water discharge (m³)

Year	Deposit tank	Lisičji jarak	Total wastewater
2012	438,690	19,848	458,538
2013	544,480	15,436	559,916
Total	983,170	35,284	1,018,454

The factory produces wastewater, including process wastewater, sanitary wastewater and atmospheric wastewater. There are two points of discharge – the deposit tank from where wastewater is channeled to the PKB collector and then discharged into the Danube and the rainwater drain through which atmospheric wastewater is channeled to Lisičji jarak. The total amount of wastewater discharged from the deposit tank in 2012 was 438,690 m³, compared to 544.480 m³ in 2013. The amount of atmospheric wastewater discharged into the Lisičji jarak irrigation channel in 2012 was 19,848 m³, compared to 15,436 m³ in 2013. Our total wastewater discharge recorded during the entire reporting period increased by 25% compared to our total wastewater discharge recorded in the preceding reporting period.

The amount of wastewater discharged into the PKB collector increased by 12% in 2012 and by 39.5% in 2013 compared to the preceding reporting period. Because of the possibility of deviation in the atmospheric wastewater parameters as a result of impurities ending up in such wastewater resulting from the washing of our handling areas in front of our production plants, atmospheric wastewater was transferred to the deposit tank by a by-pass for most of the year. Accordingly, the amount of wastewater discharged into the Lisičji jarak channel decreased by 44% in 2012 and by 66% in 2013 compared to the preceding reporting period. Treated sanitary wastewater is discharged from the bio disc machine into the deposit tank. The quality of our wastewater when leaving the bio disc is far below the minimum allowed values and is consistent with quality category 2 water.

The total amount of all wastewater generated and our water consumption decreased compared to the preceding reporting period, amounting to  $10.87~\text{m}^3/\text{t}$  of product unit in 2012 and  $12.67~\text{m}^3/\text{t}$  of product unit in 2013. Our wastewater discharge per product unit decreased by 15.7% compared to the prece-

ding reporting period (the average value for the preceding reporting period was 13.6  $\rm m^3/t$ , compared to 11.47  $\rm m^5/t$  for this reporting period).

In 2012, the quality of our wastewater in the deposit tank was far above the values recorded in the preceding reporting period, and significantly improved in 2013. In 2012, deviations occurred in three most important wastewater quality parameters in relation to the required limits, whereas 90% of the wastewater analyses conducted in 2013 were within the required limits and deviations only occurred in two wastewater parameters.

Despite our plan to build a process wastewater treatment system within this reporting period, we suspended our activities on preparing the documentation necessary for its construction because we plan to expand our production plants, which will affect the amounts and quality of the factory's wastewater and the necessary treatment plant volume.

In 2012, we selected a designing company to provide an engineering & technological concept, which delivered the equipment for the future treatment plant. We conducted detailed analyses of the hydraulic and qualitative characteristics of the factory's wastewater, based on which an engineering & technological concept was provided, including a proposal for the phases and the equipment for the wastewater treatment system. In 2013, we entered into a contract and put into operation a licensed designing company that began to prepare the engineering & technological design for the treatment plant. Frikom, the designing company and the supplier of the equipment agreed upon the technology to be used for wastewater treatment, the engineering concept, and the exact location and appearance of the plant.

#### Waste

#### Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste		Papir servis FHB, IvLajn, Beotok, Maks union metali, JKP Gradska čistoća, Perihard inženjering, etc.	7,506,200	8,088,910
Hazardous waste	•	Kemis, BiS Reciklažni centar. Jugo-Impex, Farmakom MB, etc.	131,260	50,005
Total			7,637,460	8,138,915

#### **Spills**

No spills of dangerous substances were recorded in 2012 and 2013.

#### **Products and Services**

During the same period, we undertook activities to improve our control of water and steam consumption by installing new steam meters and reconstructing our existing water meters. We reduced our water and energy consumption by reconstructing the condensate return line at the ice cream blend preparation department. Such reduced and better controlled water consumption was also a result of reconstructing the pipeline at the chemical water preparation department. We thereby also improved safety and reduced the possibility of any accidents.

In 2012, the total amount of packaging materials reclaimed was 21.01% of the amount of packaging placed on the market, which was consistent with the relevant targets. Paper accounts for 54.81%, plastic accounts for 18.09%, metal accounts for 9.43%, and wood accounts for 7.16%. We reclaimed 34.2% of all paper we placed on the market, 15.9% of plastic, 53.6% of metal and 6.9% of wood. In 2013, the total amount of packaging materials reclaimed was 32% of all packaging placed on the market, which was consistent with the relevant target (23%). This information was received from our contractors responsible for collecting and properly disposing of packaging waste placed on the market.

#### Compliance

In 2012 and 2013, Frikom did not pay any court-imposed or any other fines for failure to comply with any environmen-

tal laws or regulations and no other non-monetary sanctions were imposed.

### **Transport**

Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

Year	Fuel for transport (GJ)	Total CO <sub>2</sub> emission (tons of CO <sub>2</sub> equivalent for fuel)	
2012	58,346	1,538	
2013	63,655	1,678	
Total	122,001	3,216	

In 2012, our total greenhouse gas emissions resulting from transporting products and other goods was the same as it was in the preceding period, while it increased by 8% in 2013 as a result of increased production and distribution volumes.

### **Environmental Protection Investments**

Costs of waste and wastewater disposal and analysis, emissions treatment, rehabilitation, maintenance and investmenta

Year	Waste disposal, emissions treatment, rehabilitation, and pollution costs (EUR)	Environmental prevention, investments and management (EUR)
2012	383,142	69,353
2013	431,579	90,953
Total	813,721	160,306

### Planned Activities and main Objectives for 2014 and 2015

- 1. To contract the service of collecting vegetable waste resulting from vegetable processing to a biogas plant remains an objective for solving the issue of organic waste for the next period, as there are still no biogas plants available that could dispose of such waste.
- 2. To reconstruct our process water and wastewater treatment system.
- 3. To automate the plumbing pumping station to improve distribution and reduce the amount of water withdrawn to minimize our electricity consumption and our pump maintenance costs.
- 4. To replace the old hydrochloric acid tank by a new one, whereby we will enhance our chemicals management safety and reduce the likelihood of any spills.
- 5. To overhaul our heating line in a part of the factory complex and thus reduce our heat and water losses.

## Ice Cream and Frozen Food

# Irida d.o.o.

IRIDA was the first fish processing factory in continental Croatia, established in 1978 in Daruvar. Its initial capacities used for primary processing, confectioning and deep freezing of freshwater fish, have developed into a modern factory for processing, confectioning and deep freezing of all kinds of freshwater and saltwater fish, mollusks, crustaceans, seashells, fish products and other seafood.

In line with the prevailing market requirements, the company's production is primarily based on processing saltwater fish and mollusks, whereas freshwater fish accounts for very little of the overall production (about 2%-3% annually).

Irida has been owned by Ledo and has operated as part of the Agrokor Group since 2002. In 2005, Irida implemented its environmental management system and thus became the first Agrokor company to hold an ISO 14000 certificate.

In 2008, Irida received a grant as part of the SAPARD program for its Packaging Line Technological Equipment Project. In 2009, Irida established its integrated quality, food safety and environmental management system and had it certified according to the requirements of ISO 9001:2008, ISO 14001:2004 and HACCP. In 2012, Irida received IPARD aid for its project for building a wastewater treatment plant. By keeping up to date with local and global achievements in fish processing and constantly investing in modernization of its business processes, Irida ensured a remarkable level of technological equipment.

All relevant environmental management programs were implemented during the 2012-2013 reporting period:

- We provided employee training programs, both internally (all permanent and new employees – evacuation drill, rational use of resources, waste management) and externally (training the responsible person for handling dangerous chemicals).
- We undertook our regular activities gauged our safety valves and pressure meters on compressors, preventively maintained our cooling system (ammonia replenishment), monitored the quality of our wastewater and sludge, and measured our exhaust fume emissions from the boiler room in 2012.

- Representatives of Bureau Veritas conducted internal and external audits of our integrated process management system (2 supervisory audits - ISO 9001 and ISO 14001, and 1 recertification audit and 1 supervisory audit for HA-CCP)
- We sorted waste by type and source and disposed of it through licensed operators.

We made several investments during this reporting period for the purpose of optimizing our use of natural resources and constantly improving and preventing and minimizing all adverse impacts on the environment – water, air and soil in our immediate and global settings. Consequently, these investments were as follows: we built and put into operation a wastewater treatment plant; by installing an electricity consumption monitoring system, we reduced our electricity consumption per ton of cleaned product (squid) by 9%; by dividing a single gas network into two networks (production plant and corporate building) and rationalizing our consumption, we reduced our natural gas consumption by 10%, and reduced our consumption of chemicals used for washing by 5% by installing stationary foam machines.

To attain and maintain top quality of our products, a food factory of this type uses plenty of water as this is required by the technological process and high hygienic standards in production. Using a clean production methodology, we take steps to minimize our water consumption and our pollutant emissions into wastewater. Having rationalized consumption, we achieved a decrease of 25% in the reporting period. All comparisons relate to the 2010-2011 reporting period.

Irida complies with and implements the provisions of all laws and regulations of the Republic of Croatia and the EU defining environmental issues and constantly aims to improve its attitude towards the environment. Environmental management is reflected in proper waste sorting by type and source, continuous monitoring of our energy consumption levels, and constant training of our employees in rational use.

#### **Materials**

Raw materials processed (cleaning, freezing, confectioning, breading, packaging) at Irida are classified as follows:

- · saltwater fish (oily and white),
- other marine organisms (mollusks, seashells, crustaceans and musky octopus),
- · freshwater fish,
- · meat (chicken, pork and baby beef), and
- · miscellaneous (vegetable soup and mushroom soup).

Saltwater fish, other marine organisms and meat are delivered to Irida frozen at up to -18 °C. Freshwater fish is delivered fresh as a raw material and then frozen at Irida at -18  $^{\circ}$ C after cleaning. Compared to 2012, in 2013 we recorded a decrease in the amount of raw material used in the case of meat (91%), saltwater fish (39%) and freshwater fish (29%), whereas an increase by 8% was recorded in the case of other marine organisms. The total amount of raw material used in 2013 decreased by 11% compared to 2012. This is mainly due to the fact that we relocated almost all our meat packing and some of our saltwater fish packing activities to Ledo packing facility in Dugopolje. The reason for the decrease in the amount of raw freshwater fish is that we discontinued this product range. Compared to the preceding reporting period (2010-2011), we recorded a decrease in the amount of raw material used for freshwater fish (87%), meat (64%) and saltwater fish (45%), whereas an increase by 7% was recorded in the case of other marine organisms. The total amount of raw material used decreased by 19%.

In 2012 and 2013, the ancillary process materials used by Irida were lubricating oils used to operate its cooling system and vacuuming machines. These are mineral-based, non-chlorinated lubricating oils for engines and gears. During this reporting period, the amount of ancillary process materials used decreased by 12% compared to the preceding reporting period.

In 2012 and 2013, Irida used cardboard and polymer packaging materials in its production. During this reporting period, the amount of packaging materials used decreased by 27%

#### Materials used by weight or volume - kg

Type of material used	2012	2013
Raw material	3,186,963	2,850,492
Ancillary process materials	0,374	0,239
Packaging materials	386,985	292,918
Total	3,574,322	3,143,649

Recycled packaging materials are mostly used as secondary/ transport packaging, as they were in the preceding reporting period.

### **Energy**

The only primary energy source used by Irida is natural gas. It uses no other fuels (diesel or gasoline) because it does not have its own transport division. Natural gas is used to heat sanitary water and all premises.

In 2012 and 2013, gas was supplied to Irida by Darkom, a company based in Daruvar, on the basis of a service contract signed. We did not produce or sell any direct energy sources during the relevant period.

# Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)	LPG (GJ)
2012	0	4,296	0
2013	0	4,223	0
Total	0	8,519	0

In 2012, gas prices ranged between:

- $2,92 \text{ HRK/m}^3 \text{ and } 3,05 \text{ HRK/m}^3$ ,
- 322870 HRK/kWh and 0.442731 HRK/kWh.

In 2013, gas prices ranged between 0.396298 HRK/kWh and 0.404937 HRK/kWh.

The total gas consumption and price includes all gas meters at the location (large gas meter, small gas meter (kitchen), and the gas meter in the drying kiln).

Our natural gas consumption recorded during the 2012-2013 period decreased by 10% compared to the preceding reporting period. This is a result of more rational use of gas and dividing a single gas network into two networks, thus allowing us to heat the production plant independently of the corporate building (the plant operates while the corporate building is closed, or vice versa).

Indirect energy supplied and used from sources external to Irida includes electricity, ammonia, refrigerants and liquid nitrogen.

Electricity is used to supply our equipment, lighting devices and machines. Electricity continues to be supplied by HEP Elektra Križ - Daruvar and our consumption is monitored on the basis of the bills received.

Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	6,414
2013	6,646
Total	13,060

In 2012, we installed a 24-hour electricity consumption monitoring system. The results of a scan showed which equipment uses most electricity and they now operate when lower

rates apply. Our electricity consumption increased by 2% during the 2012-2013 reporting period compared to the preceding reporting period. This increase is a result of increased cleaning activities (squid) and putting into operation of a wastewater treatment plant using electricity. Our electricity consumption was in proportion to our product cleaning activities because the technological process involves using electricity for the freezing tunnel (temperatures between -26 °C and -35 °C). Depending on the amounts of products, the tunnel may operate for 15 to 20 hours daily. Our electricity consumption (MW) per ton of cleaned product decreased compared to 2011 because freezing in a Styrofoam mat was replaced by metal molds for all smaller commercial packaging sizes (400 g and 500 g), so our batches within a freezing cycle are now bigger.

Ammonia is used as refrigerant in our primary cooling system, which is closed. The tanks and pipelines of our closed cooling system contain approximately 3,000 kg of ammonia. New amounts of ammonia must be loaded into the system every year because ammonia is lost every time oil is discharged from the compressor. In 2012, we replenished the system with a substantial amount of ammonia while overhauling the plant and replenishing the new plant (the new container is larger than the old one). Compared to the preceding reporting period, we loaded 63% more ammonia into our cooling system.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Ammonia (kg)
2012	1,640
2013	0,840
Total	2,480

Freon is used as refrigerant in our primary cooling system, which is also closed. The tanks and pipelines of this cooling system contain 120 kg of R404 A and 20 kg of R22 – the amounts and types of refrigerant did not change compared to the preceding reporting period.

Liquid nitrogen is used for direct freezing of breaded products. In 2012, our production of breaded products increased, which resulted in increased use of liquid nitrogen; in 2013, we downsized this product range, which also resulted in a decrease in the consumption of liquid nitrogen. Our liquid nitrogen consumption increased by 50% compared to the preceding reporting period as a result of increased production.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Total	495,545
2013	224,408
2012	271,137
Year	Liquid nitrogen (kg)

### Water

Irida uses water for drinking, for production purposes as process and cooling water, for sanitary purposes, and for washing its plants and facilities. Water from the public water supply system supplied by Darkom from Daruvar is used for all these purposes. Our water costs are monitored on the basis of the bills received, we internally record our water consumption on the water meter on a monthly basis to rationalize our use of water, and train our employees in rational use of water. We also internally monitor our water consumption when the plant is not in operation (weekends and holidays) to check

that our internal water supply system is watertight. The most recent test was conducted in 2011 by using the V-water method. The inspection and testing results showed that some inspection shafts and drains did not meet the relevant watertightness requirements. After rehabilitation, the watertightness of the rehabilitated parts of the internal sewerage system was tested, and the test results showed that all facilities (shafts and drains) were in ling with watertightness requirements.

#### Total water withdrawal by source (m<sup>3</sup>)

Year	From wells	For process purposes	From a public water supply system	Total amount of all waters withdrawn
2012	0	0	17,226	17,226
2013	0	0	22,071	22,071
Total	0	0	39,297	39,297

In 2012 and 2013, the price of water was 8,90 HRK/  $m^3$ .

Compared to the 2010-2011 reporting period, our water consumption decreased by 25% as a result of rationalization in

use and a new technological process for cleaning raw materials adopted as of 2011.

Irida is located on the edge of the town, in an industrial zone. A location within the factory area covering 0.03 km² contains twelve buildings (corporate building, production plant, warehouse/refrigeration facility, and ancillary facilities). Irida

engages in processing of fishery products, meat processing and repacking and storing frozen animal-origin food. Irida is a food facility registered in the records of authorized food facilities under number 677.

### **Biodiversity**

As Irida is located within an industrial zone, it has no impact on any protected areas and their biodiversity.

### **Emissions, Effluents and Waste**

Our  $CO_2$  emissions are a result of natural gas combustion (point of emission: boiler room exhaust line) to obtain thermal energy for heating sanitary water and all premises. The amount of  $CO_2$  emissions is calculated on the basis of the amount of gas used. Our  $CO_2$  emissions decreased compared to the preceding reporting period as a result of decreased natural gas consumption.

## Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Production plants	0,205	0,202
Fuel for transport	0	0
LPG	0	0
CO <sub>2</sub> equivalent	0,205	0,202

According to Article 112 of the Regulation on the Limits of Pollutant Emissions (Official Gazette 117/12), we determine

the amounts of pollutants in our waste fumes from our small heating equipment through occasional measuring conducted at least once every two years. Our  $NO_2$  and CO emissions are a result of natural gas combustion (for heating water and premises). IRI SISAK conducts measuring of pollutant emissions from stationary sources at Irida's location once every two years. The most recent measuring was conducted on October 25, 2012. The concentrations of  $NO_2$  and CO emissions and the fume code were within the required emission limits. Our  $NO_2$  and CO emissions decreased compared to the preceding reporting period as a result of decreased natural gas consumption.

# Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	$NO_2$	co
2012	0	0.17	0.04
2013	0	0.36	0.04
Total	0	0.53	0.08

#### Wastewater

Process wastewater at the location is treated by our wastewater treatment plant (mechanical and physical & chemical procedures) and in the deposit tank facility (mechanical procedure).

In 2011, Irida submitted an application for using IPARD funds for Measure 103 "Investments in the processing and marketing of agriculture and fishery products to restructure those activities and to upgrade them to Community standards", Section 103.3 Fisheries Sector, subsection 103.3.1 Construction, and 103.3.2 Equipment, whereby it plans to reconstruct, expand and equip its wastewater treatment plant for the purpose of improving its effluent quality.

In 2012, we began to build our wastewater treatment plant and put it into operation in early 2013. During the commissioning period, we obtained the relevant occupation permit, adjusted the equipment to achieve better output parameters (COD and BOD $_5$ ) for wastewater and carried out additional work on the equipment, whereas the Paying Agency for

Agriculture and Rural Development checked that the investment was consistent with the provisions of the contract. In December of 2013, the plant was completed and became fully operational.

Process wastewater flows into the treatment plant where rough impurities are separated by a screw sieve (mechanical treatment) and then enters a flotation machine where even the smallest particles of fat are extracted (physical & chemical treatment). Waste collected on the screw sieve is animal by-product, while waste collected by the flotation machine is waste sludge. Wastewater so treated flows to the deposit tank facility through sewerage pipes. In the deposit tank facility, floating peel and sludge and all floating substances are retained by a barrier and evenly deposited across the bottom. During the reporting period, we cleaned the deposit tank facility and waste sludge (waste code 19 08 13\*) was collected by a licensed hazardous waste operator. After being analyzed by a certified laboratory, waste sludge further divided by waste code according to the results and properly disposed of.

Treated wastewater is discharged into the city collector via an inspection shaft.

Fish processing has the greatest impact on the generation of wastewater. Most water is used to clean and thaw fish. During equipment and area washing and cleaning, pieces of fish are washed away into the sink, which increases the concentration of BOD $_5$ , COD, grease and suspended substances in wastewater. Irida presently discharges its wastewater in accordance with the applicable water license (BOD $_5$  = 1500 mgO $_2$ /l and COD = 2000 mgO $_2$ /l) and the applicable regulations of the Republic of Croatia. According to the Water Management License, wastewater is sampled twice a year. The Veterinary Institute of Križevci collects samples and measures the flow rate of, and analyzes our wastewater. The results of the wastewater analyses conducted in 2012 and 2013 were consistent with the requirements of the water license.

Having made our wastewater treatment plant fully operational, we reduced the amount of waste sludge classified under

waste code 19 08 13\*. The operation of the plant increased the amount of animal by-products (AB) (waste code 02 02 02) and resulted in a new waste code (02 02 04) – sludge from on-site effluent treatment. As the plant was put in operation in 2013, we expect to determine the actual amounts of waste in 2014. In 2012 and 2013, we reduced our water consumption and increased our product cleaning activities (squid), which resulted in increased process wastewater concentrations. Thanks to our wastewater treatment plant, such water has similar COD and BOD $_5$  values after treatment as our wastewater did during the 2010-2011 period when our water consumption was greater and our production smaller.

#### Total water discharge

Year	Wastewater (m³)
2012	17,226
2013	22,071
Total	39,297

#### Wastewater analyses

Parameter	20	)12	20	13
Parameter	Sample 1	Sample 2	Sample 1	Sample 2
Water temperature (°C)	13	16	16	18
Color	whitish	White and grey	Grey	Whitish and grey
Odor	Intensively foreign	Intensively foreign	Intensively foreign	Very unpleasant
рН	6.8	6.7	7.2	7
COD (mgO <sub>2</sub> /L)	1028	785	1412	1609
BOD <sub>5</sub> (mgO <sub>2</sub> /L)	416	250	774	333
Total oil and fat (mg/L)	57	1.8	36.2	1.1
Detergent – anionic MBAS	_	0.6	0.52	0.25

#### **Waste**

Irida sorts its waste at its source, collects is separately by type, and temporarily stores it in a designated area. Hazardous and non-hazardous waste is temporarily collected at Irida

and then all types of waste are collected by an operator licensed for waste collection, transport, intermediation, treatment, use or disposal.

#### Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R ili D	Agroproteinka, Europlast, Sekundarne sirovine, Vitrex, KT	625,682	696,431
Hazardous waste	R	Zagrebpetrol, KT	0,343	13,503
Total			626,025	709,934

In 2013, the total amount of non-hazardous waste increased compared to 2012; however, if analyzed individually, decreased amounts were recorded only in the case of some types of waste. On September 1, 2012, Ledo packing plant in Dugopolje began to operate and some of Irida production was moved to that location. This is why the amount of paper and cardbo-

ard packaging and plastic waste decreased compared to 2012. The amount of paper and cardboard packaging decreased by 13% and the amount of plastic decreased by 21% compared to the preceding reporting period.

To extract fat and oil from wastewater (the flotation machine), the wastewater treatment plant uses chemicals packaged in reusable plastic packaging, so their use did not result in an increase in this type of waste compared to 2012. In 2013, we increased our squid production, which resulted in more animal byproducts and was also the main reason why our total amount of non-hazardous waste increased compared to 2012. The share of animal by-product waste increased by 2% and the share of non-hazardous waste decreased by 3% compared to the preceding reporting period.

In 2013, we recorded a significant decrease in total hazardous waste compared to 2012, mainly due to waste sludge from the deposit tank. At the beginning of each year (in January or February), we cleaned the deposit tank (disposal of waste sludge – waste code\*) and presented the relevant amount as amount generated in the preceding year. In 2013, we cleaned it at the end of the year instead of the beginning of the year, so this amount was presented for 2013 instead of 2012. The amount of waste sludge decreased by 50% and the total amount of hazardous waste decreased by 49% compared to the preceding reporting period.

#### Spills

Irida has internal regulations in place for the treatment of substances that may have an adverse environmental impact if spilled. The relevant internal regulations are: Policy and Instructions for the Operation and Maintenance of Facilities and Equipment Relevant to the Protection of Water against Pollution, Policy for the Disposal of all Types of Waste Resulting from Processes and Sludge Resulting from the Wastewater Treatment Process, Operating Plan of Interventional Measures in Case of Sudden Water Pollution, and the Environmental Interventions Plan.

All cleaning products, disinfectants, oil and hazardous waste are kept in locked storage room designed to prevent any spills into water or soil (bundwalls provided as protection in case of uncontrolled spills). Similarly to the preceding reporting period, no spills of chemicals, oil or waste were recorded

in the 2012-2013 period. However, we recorded a 12% increase in consumption during this reporting period compared to the 2010-2011 reporting period. This was a result of increased use of products for cleaning metal molds (used for squid freezing) as they replaced Styrofoam mats for almost all our products during the 2012-2013 period.

#### Total cleaning and disinfecting chemicals

Year	Total amount (kg)
2012	6,185
2013	5,885
Total	12,070

#### **Products and Services**

For the purpose of minimizing our electricity consumption, our electricity consumption is monitored 24 hours a day, our employees are constantly trained and we raise their awareness with respect to electricity consumption (during our internal training sessions, we focus on each individual's contribution to electricity saving), we optimize and improve technological processes (economical use of machines, devices and equipment), and optimize the use of cooling chambers and plants.

To minimize waste, we continuously train employees with respect to proper waste sorting by type and source and receive cleaning products and disinfectants in reusable packaging.

To minimize water consumption, we continuously train employees, monitor water consumption, measure watertightness, recirculate water, and use nozzles on washing hoses to minimize uncontrolled discharge during washing. The storage rooms in which we keep our cleaning products, disinfectants, oil and hazardous waste are designed to prevent any spills into water or soil (bundwalls provided as protection in case of uncontrolled spills). In addition, we regularly inspect, test and gauge our cooling system (preventive and protective measures) to prevent any ammonia penetration.

## Compliance

### **Environmental Protection Investments**

### Costs of disposal, emissions treatment and rehabilitation in 2012 and 2013

Type of waste			2012			2013	
(waste code)	Paid to	amount (kg/m³)	description of cost	amount (HRK)	amount (kg/m³)	description of cost	amount (HRK)
Packaging containing residues of or contaminated by dangerous substances (15 01 10*)	Zagrebpetrol d.o.o., Zagreb	51	4 HRK/kg	204.00	70	4 HRK/kg	280.00
Oil filters (16 01 07*)	Zagrebpetrol d.o.o., Zagreb	25	4 HRK/kg	100.00	9	4 HRK/kg	36.00
Fluorescent tubes and other mercury-containing waste (20 01 21*)	Zagrebpetrol d.o.o., Zagreb	9 (46 units)	5 HRK/kom	230.00	29 (149 units)	5 HRK/kom	745.00
Absorbents, filter materials (including oil filters not otherwise specified), fibers, wiping cloths and protective clothing contaminated (15 02 02*)	Zagrebpetrol d.o.o., Zagreb	6	4 HRK/kg	24.00	26	4 HRK/kg	104.00
Sludge containing dangerous substances from other treatment of industrial wastewater (19 08 13*)	Kemis-Termoclean d.o.o., Zagreb	-	-	-	13,180	4.90 HRK/kg	64,582.00
Municipal waste (20 03 01)	Darkom d.o.o., Daruvar	90 m³	177.41 HRK/m³	25,966.90	85 m³	177.41 HRK/m³	15,079.85
Animal-tissue waste (02 02 02)	Agroproteinka d.d., Sesvetski Kraljevec	488,476	0,69 HRK/kg	337,048.44	585,682	1,1, - 31,8,: 0,69 HRK/kg 1,9, - 31,12,: 0.10 HRK/kg	261,655.64
Plastic packaging (15 01 02)	Europlast d.o.o., Petrinja	35,870	1.80 HRK/kg	64,566.00	33,960	1.80 HRK/kg	61,128.00
Sludge from on-site effluent treatment (waste sludge resulting from flotation) (02 02 04)	Kemis – termoclean d.o.o., Zagreb	-	-	-	772	2.50 HRK/kg + 1000 HRK/tour	4,930.00
Total				418,139.34			408,540.49

Compared to the 2010-2011 reporting period, the costs of disposal, emissions treatment and rehabilitation decreased by 15% as a result of our failure to clean the deposit tank in

2012 and lower prices of disposing of animal by-products in 2013.

#### **Environmental prevention and management costs**

		Amount (HRK)	
Cost	Paid to	2012	2013
Safety valve gauging	Frigo MPS, Cerje	12,000	-
Measuring of pollutant emissions from stationary sources	IRI Sisak d.o.o. Sisak	2,000	-
Waste sludge analysis (02 02 04 and 19 08 13*)	Zavod za javno zdravstvo "Dr. Andrija Štampar", Zagreb	4,341	3,081
Supervisory audit of the ISO 9001quality management system, and the ISO 14001 environmental management system	Bureau Veritas	19,630	17,365
Wastewater composition analysis	Hrvatski veterinarski institut, Zagreb	1,500	2,300
Electricity consumption monitoring	D.V.V. d.o.o., Zagreb	12,300	-
Total		51,771	22,746

Compared to the 2010-2011 reporting period, our environmental prevention and management costs increased by 29% as a result of introducing an electricity consumption monitoring system in 2012.

Compared to the 2010-2011 reporting period, our total environmental protection expenditures and investments decreased by 12%.

## Total environmental protection expenditures in 2012 and 2013

	2012	2013
Disposal, emissions treatment and rehabilitation costs	418,139.34	408,540.49
Environmental prevention and management costs	51,771.00	22,746.00
Total	469,910.34	431,286.49

### Planned Activities and main Objectives for 2014 and 2015

- to have Bureau Veritas recertify our quality and environmental management system and conduct a supervisory audit of our quality and environmental management system in 2015;
- to gauge our safety valves and mano vacuum meters, provide evacuation and rescue drills, and analyze our sludge and wastewater on an annual basis;
- · to measure our air emissions from stationary sources in 2014;
- to adjust the operation of our wastewater treatment plant according to the input water concentration for the purpose of lowering the BOD₅ and COD values by 10%;
- · to retain the present levels of electricity and natural gas consumption or, if possible, decrease them by 1%;
- $\bullet \ \ \text{to reduce our water consumption (m}^{3}\text{/ton of cleaned squid) and our use of cleaning products and disinfectants by 1-5\%;}$
- to reduce the amount of oiled cloths, sawdust and absorbents by 10%;
- to reduce the amount of hazardous waste by 10%;
- to increase the amount of waste to be disposed of free of charge by 5%;
- to comply with statutory and other environmental requirements;
- to conduct internal and external environmental training according to the training plan for the purpose of raising our employees' awareness and improving their competences on all levels of the EMS.

## Ice Cream and Frozen Food

# Ledo d.o.o. Čitluk

Ledo d.d. Zagreb established Ledo Čitluk in 2000 by acquiring a private factory in Čitluk. Company's core business is ice cream production, butter and frozen fish packaging, and distribution of frozen products where we are a leader on the territory of Bosnia and Herzegovina. Our product range presently comprises 16 types of impulse popsicles, a commercial butter packaging, and 31 types of packaged fish products, while our distribution range includes some 400 products. Ledo presently employs 285 people on a permanent and seasonal basis, operates a fleet of 166 vehicles, and serves approximately 14,000 stores on a daily basis. Our constant focus on our employees and their education, development of new knowledge and skills, modernizing our business processes, and improving our technologies and equipment ensures us the leading position in our line of business. Simultaneously with our increasing business success, we have developed our quality, food safety and environmental management system.

#### Management Systems of Ledo Čitluk

QUALITY MANAGEMENT SYSTEM

Our quality management system, developed under the guidelines of ISO 9001:2000, was first certified in 2003 (DNV). The system was recertified for the third time in 2011 (BV). The second and third supervisory audits were conducted in 2012 and 2013.

#### HACCP SYSTEM

The management system, developed under the guidelines of Codex Alimentarius, was first certified in 2005 (DNV). The system was recertified for the third time in 2011 (BV). The second and third supervisory audits were conducted in 2012 and 2013.

#### ENVIRONMENTAL MANAGEMENT SYSTEM

Our environmental management system, developed under the guidelines of ISO 14001: 2004, was first certified in 2009

(BV). It was first recertified in 2011 (BV). The second and third supervisory audits were conducted in 2012 and 2013.

#### **HALAL System**

Aiming to meet the market demands, we implemented a Halal system in 2011 and 2012 in cooperation with our consultants. The Halal system was implemented according to BAS 1049:2010 and certified by the Halal Quality Certification Agency. The Halal system is recertified on an annual basis.

As regards our environmental protection activities planned for 2012 and 2013, we implemented most of them, as well as some additional ones as follows:

- We installed additional internal water meters to monitor water consumption by each process more accurately and to enable a timely response in case of increased consumption.
- We automated the CIP cleaning system to optimize our water consumption. Positive results were recorded in terms of water consumption reduction compared to the preceding reporting period.
- We joined the packaging waste management system through a licensed operator and thus fulfilled our statutory obligations. We established a system of maintaining records and reporting to the operator and competent authorities.
- We conducted the planned training and measuring required by law.
- · We upgraded our fire alarm system.
- We insulated the ammonia system pipeline and replaced the ammonia evaporator in the RIA-8 machine cooling system, which enhanced the system's level of safety.
- According to the relevant electronic waste management regulations, we duly joined the system through a licensed operator, in the same way we did for packaging waste.
- No non-conformities were found during the supervisory audits, only minor comments were given and all defects were rectified very soon.



#### **Materials**

#### Materials used by weight or volume - kg

Type of material used	201.	2013
Raw material	1,825,276	1,746,844
Packaging materials	188,456	159,840
Total	2,013,732	1,906,684

In the context of ice cream production, 2012 was one of the most successful years in history. We also recorded an increase in our packaged fish product range. Such good results in the case of ice cream were not repeated in 2013, mostly as a result of bad weather. We recorded an increase in fish production in 2013 as well. In total, we used more raw materials (7.22%) and packaging materials (8.66%) compared to the preceding reporting period.

# Percentage of materials used that are recycled input materials

Recycled packaging materials	2012	2013
kg	117,602	104,205
%	64.45	65.19

Materials that may be used after recycling are packaging materials used for secondary packaging – cardboard boxes. The use of such materials increased by 7.24% compared to the preceding reporting period, which is directly related to increased production. The percentage of materials used that are recycled input materials was 64.5% in the preceding reporting period, compared to 63.7% in this reporting period.

### **Energy**

# Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Heating oil (GJ)
2012	27,611	2,330
2013	27,629	2,210
Total	55,240	4,540

Diesel consumption increased by 1.36% compared to the preceding reporting period. As turnover increased by 8.02% (in kg of product) during the same period, increase in fuel consumption by 1.36% shows that transport optimization was successful. Heating oil is used by the boiler room for the hot water boiler directly relating to production, so consumption of heating oil increased by 7.58% compared to the preceding reporting period.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	9,663
2013	8,944
Total	18,607

The electricity consumption decreased compared to the preceding reporting period (-1.47%), although production increased (+7.32%), which is a result of systematic consumption monitoring, production planning and taking steps to reduce our electricity consumption.

#### **Electricity consumption per product unit**

Year	Production (kg)	Electricity consumption (kWh)	Consumption per production unit (kWh/kg)
2010	2,136,731	2,654,019	1.242
2011	2,136,513	2,592,048	1.213
Total	4,273,244	5,246,067	1.228
2012	2,427,165	2,684,304	1.106
2013	2,159,045	2,484,444	1.151
Total	4,586,209	5,168,748	1.127

Electricity consumption per product unit has been systematically monitored since 2010. By using rationalization measures (preventive maintenance of equipment, insulation, planning larger production batches, training, consumption parameter analysis), we reduced electricity consumption per kilogram of product by 8.20% compared to the preceding reporting period.

#### Water

#### Total water withdrawal by source (m³)

Year	Total amount of all waters withdrawn
2012	16,012
2013	13,207
Total	29,219

Ledo Čitluk uses water from a public water supply system for its processes. As we had recorded a significant increase in water consumption, we took corrective actions (installing internal water meters, automating the CIP system) that resulted in a decrease in water consumption by 8.75% during this reporting period, which is 14.98% less expressed in units of finished product.

#### **Biodiversity**

Ledo Čitluk is located in the industrial zone of the Municipality of Čitluk, which is not in or adjacent to any protected

areas or areas of high biodiversity value and therefore has no significant impacts on biodiversity.

#### **Emissions, Effluents and Waste**

## Total direct and indirect greenhouse gas emissions by weight

CO <sub>2</sub> equivalent	3,819	3,666
Heating oil	179	169
Fuel for transport	1,691	1,692
Production plants (electricity)*	1,950	1,804
Total air emissions (t CO <sub>2</sub> eq.)	2012	2013

<sup>\*</sup>The emission coefficient values were used according to the EMEP/EEA air pollutant emission inventory guidebook (for all sectors), 2009 (http://wastewater.eea.europa.eu/publications/emep-eea-emission-inventory-guidebook-2009)

We observed a decreasing trend in total electricity consumption, which directly reflected on the level of  $\text{CO}_2$  emissions, resulting in a decrease of 1.47% compared to the preceding reporting period. Our  $\text{CO}_2$  emissions resulting from fuel combustion during transport directly depend on fuel consumption and increased by 1.36%. Heating oil is used for the boiler in our boiler room, which is directly related to production. As we had recorded an increase in production of 7.32% in the preceding reporting period, related consumption of heating oil also increased by approximately the same percentage – 7.58%.

Indirect greenhouse gas emissions relate to emissions resulting from transporting employees to work. As it is impossible to organize group transport of our employees, we only record fuel used for business trips using company cars, as presented in the above table.

#### Ozone depleting substances by weight (kg)

Year	R22 (ODP 0.05)
2012	66
2013	235
Total	301

As regards the refrigerants used by cooling systems, only R22 has ODP over 0. Its consumption increased in 2013 as a result of defects in the cooling system that could not be foreseen or prevented. Compared to the preceding reporting period, consumption increased by 216.2 kg.

## Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	$NO_2$	CO <sub>2</sub>
2012	0.461	0.143	178.501
2013	0.438	0.136	169.312
Total	0.899	0.279	347.813

Emissions of nitrogen and sulfur oxides are a result of heating oil combustion in the boiler room and they increased compared to the preceding reporting period by 7.66% due to increased consumption of heating oil resulting from increased production (+7.32%).

#### Wastewater

#### Total water discharge

Year	Wastewater (m³)
2012	9,271
2013	8,076
Total	17,347

The amount of wastewater is directly related to our water consumption and production volumes, which were used to

estimate the relevant amounts. Thanks to rationalization measures, we reduced water consumption and, consequently, wastewater amounts (the decrease is estimated to be 19.89% compared to the preceding reporting period). Our water license is regularly renewed, studies are regularly prepared, wastewater quality measuring conducted, and all water charges duly paid. The respective results of such wastewater quality measurements depend on the current production phase and are not mutually comparable.

#### Waste

#### Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R3, R4, R5	JKP Broćanac, CIBOS, DUGA	188,230	178,365
Hazardous waste	D10, D15, R1,R4	KEMIS, CIBOS, Triton, DUGA	1,592	742
Total			189,822	179,107

In 2012, we collected a total of 21 types of waste, 15 hazardous and 6 non-hazardous. Most of our non-hazardous waste is municipal waste, paper and cardboard, while waste oil accounts for most of our hazardous waste. In 2013, we generated a small amount of hazardous waste, primarily because we did not replace oil in our machines.

We collected 3.59% less waste compared to the preceding reporting period - there was 3.82% less non-hazardous waste, but 53.85% more hazardous waste.

We did not record any significant spills of chemicals, oil or fuel. We purchased a mobile bundwall for oil to improve our incident management activities.

During this reporting period, we undertook activities to increase the safety level in handling ammonia by replacing the cooling system on the RIA-8 machine and replacing and insulating the liquid ammonia pipeline.

#### **Products and Services**

By making the following changes in our production plant:

- by installing new internal water meters to precisely define our consumption by process within the company, based on which we will be able to make appropriate plans;
- by procuring additional containers and thus increasing production capacities and ensuring better production continuity and production in larger batches;
- by automating the CIP system to optimize and automatically monitor cleaning water consumption,

we reduced water consumption and the volume of cleaning water used, as well as the relevant burden.

We purchased additional special containers for hazardous waste. We completed upgrading our fire alarm system.

By exercising technological discipline, monitoring costs and consumption on a monthly basis, maximizing production batches, monitoring distribution parameters and planning transport routes, we optimize our costs and use of raw materials

and energy. Compared to the preceding reporting period, we reduced consumption of:

- · water per kg of finished product by 14.98%,
- · electricity per kg of finished product by 8.20%, and
- fuel per kg of sold product by 6.17%.

We do not reclaim products from our final customers. Ledo Čitluk is included in the packaging waste management system through a licensed operator responsible for recording the amounts of packaging waste placed on the market of the Federation of Bosnia and Herzegovina and through the Environmental Protection and Energy Efficiency Fund of the Republic of Srpska. The packaging waste management targets set were 8% of the total amount in 2012 and 13% in 2013. The operator we had engaged submitted evidence of our fulfillment of the targets set to the relevant Ministry, whereby we met the objectives we had been required to meet.

#### **Compliance**

During this reporting period, no negative reports were issued by supervisory authorities and no fines or sanctions were imposed for non-compliance with any environmental laws or regulations.

#### **Transport**

Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

	Fuel for transport	Heating oil		Total CO <sub>2</sub> emission
	GJ	GJ	Tons of CO <sub>2</sub> equivalent for fuel	Tons of CO <sub>2</sub> equivalent for heating oil
2012	27,611	2,330	1,691	179
2013	27,629	2,210	1,692	169
Total	55,240	4,541	3,383	348

Our diesel consumption increased by 1.36% and heating oil consumption by 7.58% compared to the preceding reporting period, which is an absolute amount that should be monitored according to the results achieved in that period, because fuel

consumption per kg of turnover decreased by 6.17%. Heating oil consumption per unit of finished product was roughly the same as it was in the preceding reporting period.

#### **Environmental Protection Investments**

## Total environmental protection expenditures and investments by type (EUR)

Ledo Čitluk	2012	2013
Waste management costs	6,391	5,623
Measurement, analysis and training costs	6,428	6,112
Charges (packaging, electronic waste, etc.)	9,074	14,851
Periodic system checks	773	844
Investments in waste management and the production plant	9,990	111,100
Total expenditures	32,656	138,530

Compared to the preceding reporting period, we made much greater investments in our production plant (we replaced the cooling system on our RIA 8 machine and the ammonia system and upgraded our fire alarm system), which resulted in a total increase in our system-related expenditures by EUR 127,355 (+390.6%). As regards our waste management revenue (secondary raw materials), we recorded an increase compared to the preceding reporting period – we obtained EUR 6,524 in revenue for the preceding reporting period, compared to EUR 9,879 for this reporting period, which was 51.43% more.

#### Planned Activities and main Objectives for 2014 and 2015

As decided at the Ledo Group level, ice cream production in Ledo Čitluk will be discontinued following the 2014 season and the present fish repacking facilities will be enlarged by introducing a new automated packaging line. These changes in our product range also define activities to be undertaken in the next period:

- $\bullet \ \ \text{optimization of ice cream production by maximizing raw materials and input to minimize our waste;}$
- dissembling of ice cream line and disposal of the resulting hazardous waste;
- · dissembling the ammonia system and removal of 5 tons of ammonia;
- installing a new fish packing line;
- · aligning the changes to production plant with the relevant statutory provisions (licenses, measurements, authorizations);
- revising our Environmental Management System, but also all other implemented management systems (all procedures, documents and records) and educate our employees on the topic of such changes

Our continuing activities on maintaining and improving EMS that will be performed in the next period are: continuing employee training, conducting legally required measuring and tests, and conducting internal and external audits.

### **Agriculture**

# Belje d.d.

Belje was established 317 years ago, way back in 1697. After joining The Agrokor Group in 2005, Belje has built its future as part of the largest food producer in this part of Europe. By implementing global state-of-the-art technologies, it follows healthy food trends, adheres to environmental standards, and is fully market-focused. We have modernized all Belje production processes and discontinued some of them. Most of these funds were invested in renovating the core activities – agriculture and cattle farming. With such new financial and market strengths, Belje received support for its further growth and development.

Its food production, agricultural and cattle farming activities are divided into different profit centers (PC):

- production of cured meat products (PC Baranjka)
- production of mill products, drying and storing crops and oleaginous plants (PC Mill and PC Mlinarstvo Križevci)
- winegrowing, winemaking (PC Wine Cellars)
- production of cattle feed, drying and storing crops and oilseeds (PC AFF, PJ Agroprerada Ivanić Grad)
- production of dairy products (PC DF)
- growing crops and vegetables; seed refinement (PC Agriculture: PU Brestovac – Karanac, PU Mirkovac, PU Širine – Kneževo, PU Poljanski lug, and PU Seeds)
- pig farming and pig fattening (PC Pig Farming; farms: Kozarac, Darda 1, Brod Pustara 1, Brod Pustara 2, Malo Kneževo, Gradec 1, Gradec 2, Haljevo, Gaj, Sokolovac, Podlugovi)
- veal farming and baby beef fattening (PC Baby Beef Fattening; farms: Eblin, Hatvan, Mala Karašica, Sudaraž, Poljanski lug)
- dairy cow farming and dairy production (PC Dairy Farming; farms: Topolik, Čeminac, Popovac, Zeleno polje, Prosine, Karanac and Mitrovac)
- servicing, maintaining and selling agricultural machinery and equipment (PC Remont)
- transport (PC Beljetrans)
- storing and packing fruits and vegetables, fruit farming (PC Fruit Farming; PU Dugo Selo Refrigeration Facility and PU Obreška Fruit Farm)
- providing veterinary audit services for cattle farming, collecting animal waste (the Belje Agro-Vet d.o.o. subsidiary).

In late 2006, Belje made a strategic decision to implement an integrated quality management system according to the requirements of the HRN ISO 9001:2000 international standard and an environmental management system according to the requirements of the HRN ISO 14001:2004 internatio-

nal standard. As a member of The Agrokor Group, Belje fully adopted its Environmental Protection Policy. Due to the complexity of organization and scope of work, that same year Belje established its Management System Department attached to the CEO's Office. Intensive work was undertaken on implementing such integrated management system. We engaged the Lloyd's Registar EMEA and Biotechnicon consultants to help us implement our integrated management system.

During the 2012-2013 reporting period, Bureau Veritas conducted regular external audits (the first one in April of 2012, and the second one in April of 2013) for the ISO 9001:2008 and ISO 14001:2004 standards. Our BS OHSAS 18001:2007 standard was first recertified in April of 2012, at which time we received a certificate that expires on April 29, 2015. The first supervisory audit was conducted in April of 2013, followed by the second one a year later, in April of 2014. Our  $\,$ HACCP standard is recertified every three years and supervisory audits are conducted on an annual basis. The standard was last recertified in 2012 (PC Baranjka, PC DF, PC Mil, PC Mlinarstvo Križevci, PC AFF, PC AFF PU Agroprerada, PC Wine Cellars, Kormoran Restaurant). As regards our GLOBAL G.A.P., the cattle farming module was recertified for the December 21, 2011 to November 29, 2012 and the November 30, 2012 to November 29, 2013 periods.

The agricultural module was recertified for the December 21, 2011 to December 20, 2012 and the December 21, 2012 to December 20, 2013 periods. In 2008, we received a Kosher certificate for PC DF, in 2009 for PC Mill, and in 2010 for PC Mill, PU Mlinarstvo Križevci. A Halal certificate was awarded for our PC DF; it was first certified on December 10, 2012 and recertified on December 10, 2013. Our Kosher and Halal standards are recertified on an annual basis. We received an IFS Food certificate for PC DF. It was first certified in September of 2013. The certificate expires on November 19, 2014.

The following plans were implemented during this reporting period:

- We installed a new wastewater treatment plant in PC Wine Cellars (the new winery).
- We replaced crude oil in PC Dairy Factory by environmentally more acceptable natural gas.
- Our Darda 1 and Brod Pustara 1 farms within PC Pig Farming also switched to natural gas in 2013.
- Our Mitrovac Farm (PC Dairy Farming) has not been completed yet, but finishing work is in progress. In October of 2013, we put into operation our Mitrovac biogas plant.



#### **Materials**

#### Materials used by weight or volume - kg

Type of material used	2012	2013
Raw material	226,471,014	225,939,647
Ancillary process materials	36,049,379	34,261,682
Packaging materials	1,305,611	1,347,787
Total	263,826,004	261,549,116

No major discrepancies were recorded for the EN1 indicator between the 2010-2011 and the 2012-2013 reporting periods.

Considering the structural changes in Belje, we recorded an increase in the amount of packaging material used; however, if we compare the years within a single reporting period (2012-2013), we recorded a minor decrease by 0.24% in the amount of raw materials used and by 4.96% in the amount of ancillary process materials used. We did not analyze the amounts of our ancillary process materials for the 2010-2011 reporting period.

Belje presently uses no recycled input materials.

#### **Energy**

## Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)	LPG (GJ)
2012	252,092	59,011	39,019
2013	254,245	50,501	32,262
Total	506,337	109,512	71,281

Comparing the two reporting periods, we can observe a decrease in LPG consumption by 29.73% and in natural gas consumption by 33.83%. If we compare the years 2012 and 2013, our liquefied gas consumption decreased by 17.31% as a result of conversion to a new form of energy (natural gas), the consumption of which also decreased by 14.42% during the same period. Such reduced natural gas consumption is a result of minimal operation of our drying kilns (that normally use substantial amounts of this form of energy) due to a very dry summer. Comparing the two reporting periods, we can observe an increase in fuel consumption by 23% as a result of increased production volumes and the merger of PC Fruit Farming (on May 1, 2013).

## Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	99,341
2013	101,864
Total	201,205

Electricity is supplied by HEP and is primarily used to operate our machines and lighting equipment. Our electricity consumption for the 2012-2013 reporting period increased by 2.47%. Comparing the consumption levels for both reporting periods, we can observe increased consumption which does not result from non-monitored use, but the merger of a new PC (PC Fruit Farming) and increased production volumes in both PC Animal Feed Factory and PC Dairy Factory (work in three shifts).

#### Water

#### Total water withdrawal by source (m³)

Year	From wells	For process purposes	From a public water supply system	Total amount of all waters withdrawn
2012	645,594	0	197,784	843,378
2013	637,427	0	189,959	827,386
Total	1,283,021	0	387,743	1,670,764

Water is used for drinking, personal hygiene and sanitary purposes, cattle watering, production purposes and for washing our plants and facilities. Compared to the preceding reporting period, the total amount of all waters withdrawn slightly increased (by 0.53%) during the 2012-2013 reporting period, and decreased by 2% in 2013 compared to 2012. Belje presently does not use recycled water.

#### **Biodiversity**

The total surface area of the land leased by Belje in protected areas of Kopački rit is 1274 ha. In addition to agriculture, we use these areas for cattle farming on a natural basis – using

the so-called cow-calf system. Most of the herd within the system are bovines of the Hereford breed. What makes the project special is our care for a herd of eight Slavonian/Srijem

Podolac bovines, which represent an autochthonous breed, so these are among rare specimens in Croatia. The Eblin farm, a part of our PC Baby Beef Fattening, is in the immediate vicinity. Our production activities in this protected area are undertaken in accordance with the Breeding Plan approved by the competent Ministry. This plan is defined and approved for each business year and includes a defined proposal of required measures that we comply with in our production processes. In addition, we have our Kormoran Restaurant on the edge of Kopački rit that undertakes its activities in accordance with the environmental requirements and is fully blended with the setting. All this helps protect the environment, preserve natural resources, minimize soil, water and air pollution, and maintain biodiversity.

#### The History of the Kopački rit Nature Park

Kopački rit was first managed after the Belje Manor had been founded and granted by Leopold I, the Hungarian-Croatian

king, in 1699. From then on, Prince Eugene of Savoy managed the Manor until 1784. Afterwards, it was leased to the Habsburg family up to 1918. From 1920 this area was declared as a King Aleksandar Karadorđević's reserve, while from 1941-1944, under the Hungarian Kingdom, it was managed by the Hungarian National Museum that established a biological station called Albertina. The Jelen hunting and forest estate managed Kopački rit after World War II up to 1959 and from 1967 the area became a Managed Natural Reserve. As of 1997, the Kopački rit Nature Park Public Institution has managed the Nature Park.

Environmental impact assessment studies have confirmed that Belje's activities relating to the construction of new production facilities have no significant impact on biodiversity. PC Pig Farming is subject to the IPPC Directive and meets its requirements, and each pig farm holds an Environmental License.

#### **Emissions, Effluents and Waste**

## Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Production plants	9,475	9,532
Fuel for transport	6,190	6,187
LPG	2,929	2,422
CO <sub>2</sub> equivalent	18,594	18,141

## Other relevant indirect greenhouse gas emissions by weight

Year	t CO <sub>2</sub>
2012	3,775
2013	3,700
Total	7,475

A comparison of both indicators between the two reporting periods shows that the emission levels were roughly the same except for  $CO_2$  emissions in 2011 that increased by 40.09%. This is a result of putting new pig farms into operation (Haljevo, Sokolovac, Gaj).

The environmentally acceptable R 404A refrigerant and ammonia, which are used as refrigerants for the cooling systems in PC Baranjka, PC Dairy Factory and PC Wine Cellars (re-

frigerant only), have no harmful or adverse environmental impacts.  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ 

The closed cooling system in PC DF contains 435 kg of refrigerant and 1,000 kg of ammonia, while that in PC Baranjka contains 60 kg of refrigerant and 1,500 kg of NH3. In 2013, PC Baranjka loaded 8 kg of R404A into 1 chamber. The amount of refrigerant present in PC Wine Cellars is 435 kg. In 2012, we loaded 10 kg of gas into it, and 13.6 kg on two occasions in 2013.

## Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	NO <sub>2</sub>	CO
2012	29.325	6.703	0
2013	30.963	7.316	0
Total	60.288	14.019	0

No significant variations in our  $SO_2$  and  $NO_2$  emission levels were recorded in either reporting period (2012-2013 and 2010-2011). The emissions were calculated on the basis of an estimate, on the basis of the emissions and energy measured for each profit center and its production units, and the figures are consistent with the figures reported to the Environmental Pollution Registry database, which we are required by law to do by March 1 for the preceding year.

#### Wastewater

#### Total water discharge

Year	Wastewater (m³)
2012	510,473
2013	511,483
Total	1,021,956

No major discrepancies were found between the total water discharge levels for the respective years. Smaller amounts were reported for the 2010-2011 reporting period because Hrvatske vode notified the calculated water protection charge after final settlement much later.

#### Waste

#### Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R 3, 4, 5, 13	UP-OS, HR, EFP, DI, BČ-BM, KB, BV,VITREX, CeZaR, BE-AV	4,398.00	3,993.00
Hazardous waste	D 9, 10, 15	CIAK, Flora VTC (M-Z RJ VU)	56.46	69.04
Total			4,454.46	4,062.04

The total amount of hazardous waste increased in 2013 compared to 2012 because PC Baranjka and PC Mill Milnarstvo Križevci did not generate any hazardous waste in 2012. In 2013, we generated 9.22% less non-hazardous waste than we did in 2012. A substantial increase by 51.18% in the amount of non-hazardous waste was recorded in 2011 compared to 2010. This is a result of merging our new pig farms in 2011, increased production volume during that year, but

also of extracting useful waste from mixed municipal waste. We generated 3.18% less hazardous waste during the comparable period. Ultimately, having compared the preceding reporting period against this one, we reached the conclusion that the total amount of non-hazardous waste increased by 14.23% and the total amount of hazardous waste decreased by 27.03%.

#### **Spills**

Belje did not record any significant spills of oil, fuel, waste, chemicals, etc. in the past two years. This also applies to the 2010-2011 reporting period. We systematically train our employees (in profit centers and production units and on farms)

and conduct monitoring and measuring. According to requirement 4.4.7 of ISO 14001:2004 (Emergency Preparedness and Response), we conduct drills according to the Incident Plant, thus acting preventively and educationally.

#### **Products and Services**

The level of environment awareness in Belje in very high, so we aim to additionally improve the present situation on a daily basis. By building new farms within PC Pig Farming and using modern production technologies and pig manure disposal methods, we took a step forward in the context of environmental protection. In October of 2013, we put into operation the Mitrovac biogas plant powered by biomass and other raw materials from renewable sources. PC Agriculture has a very positive impact on the environment by using

specific fertilization depending on the soil composition (as determined by an analysis) and the needs of the crops grown in this specific location. Employee training and rational use of energy also largely contributed to mitigation of adverse environmental impacts.

Belje does not have a system in place for recycling and reusing materials as part of its production cycle.

#### **Compliance**

No cases of statutory non-compliance were recorded at Belje in 2012 and 2013. This also applies to the 2010-2011 reporting period. No cases of statutory non-compliance were found in any of the locations visited by environmental inspectors. All requested documents and information were presented to such inspectors.

Our Management System Department (Environmental Protection Department) monitors environmental regulations on a daily basis on the website of the Official Gazette (Narod-

ne novine), maintains the relevant records, and all our profit centers assess their compliance with the relevant statutory and other requirements in accordance with requirement 4.3.2 of ISO 14001:2004.

We also ensure that our employees from all organizational levels are further trained to contribute to continuing progress and development. Our training, systematic monitoring and continuing supervisory activities have a preventive purpose, which we think is crucial.

#### **Transport**

Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

	Fuel for transport	LPG		Total CO <sub>2</sub> emission
	GJ	GJ	Tons of CO <sub>2</sub> equivalent for fuel	Tons of CO <sub>2</sub> equivalent for LPG
2012	86,606	0	6,190	0
2013	85,533	0	6,187	0
Total	172,139	0	12,377	0

The transport systems in all our companies, including Belje, have a significant environmental impact as they generate environmental emissions, mostly air emissions (the focus is on  $\rm CO_2$  emissions as primary emissions resulting from fuel combustion). Our fuel consumption in 2012 and 2013 decreased by 12.34% compared to 2010 and 2011, which also resulted in

decreased CO<sub>2</sub> emissions. Such reduced fuel consumption is a result of less company vehicles and implementing satellite vehicle tracking. We monitored around 60 transport vehicles on average. We use 148 passenger cars, compared to 179 passenger cars analyzed in 2010 and 2011.

#### **Environmental Protection Investments**

Total environmental protection expenditures and investments by type (HRK)

	2012	2013	Total
Waste disposal, emissions treatment and rehabilitation costs	3,619,456	3,359,049	6,978,505
Environmental prevention, management ad investment costs	416,922	7,595,593	8,012,515
Total	4,036,378	10,954,642	14,991,020

We recorded a decrease of 16.27% in waste disposal, emissions treatment and rehabilitation costs in 2012 and 2013 compared to 2010 and 2011. Our environmental prevention, ma-

nagement and investment costs increased by 60% (installation of a pig manure container, a manure separator and a water treatment plant on the Mitrovac farm).

#### Planned Activities and main Objectives for 2014 and 2015

- To complete the Mitrovac complex including a dairy farm, a greenhouse and a biogas plant, thus resolving the issue of removing pig manure from the farm, but also the issue of by-products resulting from our industrial production activities in an environmentally acceptable manner.
- The biogas plant in Mitrovac was put in operation in October of 2013. For the next period, we plan to have pig manure and industrial by-products collected and thus reduce our waste and by-product disposal costs. The plant is powered by biomass.
- · To encourage reduced use of natural resources and energy, thus also reducing costs and pollutant emissions.
- To train all our employees in a systematic and specific manner for the purpose of reducing use of natural resources and
  energy as a further step in our efforts. We set specific and measurable objectives for PC Baranjka and PC Wine Cellars, which
  are monitored on a quarterly basis. Both PCs use their best efforts to maintain the level of water consumption per product
  unit recorded in the preceding year. PC Dairy Factory aims to reduce its specific water consumption per unit of processed
  milk by 3%.
- To encourage switching to environmentally more acceptable sources of energy.
- For now, we are conducting employee training in this context. Switching to environmentally more acceptable energy sources is envisaged under our long-term plans. In 2014, we plan to replace ELHO by natural gas in PC Baranjka, build a biogas plant on the Popovac farm in 2015, and replace LPG by natural gas in all other locations.

### **Agriculture**

# Agrolaguna d.d.

Agrolaguna is an agricultural and food processing company headquartered in Poreč. It produces grapes, olives, vegetables and sheep milk on its agricultural land in the surroundings of Poreč. Most of these products are raw materials used in Agrolaguna's production processes to make wine, extra virgin olive oil, hard cheeses and curd. Vegetables are sold fresh. Some raw materials are bought from our partners.

The quality of grapes and entire yield was much better in 2013, primarily as a result of very dry weather during harvesting. In addition, we purchased substantial amounts of grapes from private winegrowers. We processed somewhat less grapes than we did in 2011, but much more than in 2010. Our water consumption was lower than it was in 2011 during both years, but higher than it was in 2010. Most of these reductions are achieved through the reduction of olive farm irrigation. On the other hand, in our grape processing activities (the wineries) we have been recording a continuous increase.

In 2012, we implemented our cheese plant project. This resulted in decreased environmental impact as a result of replacing heating oil by liquefied petroleum gas in the boiler room, installing air conditioners using refrigerants that have less impact on the atmosphere, and by establishing a wastewater treatment plant and a grease separator for water flowing from the road. On the other hand, our water consumption increased in 2013 as a result of increased production, and this trend is expected to continue.

We mounted solar panels on the roofs of the cheese plant and the winery, which generate electricity without any combustion on Earth. In addition to quality (ISO 9001:2000), food safety (HAC-CP) and environmental (ISO 14001:2005) standards, we are considering introducing a Global G.A.P. system that would help integrate our management systems in the agricultural segment. The manager of the management systems is also responsible for the occupational safety segment.

Agrolaguna is an active member of the Istrian olive farmers group, undertaking activities to obtain protected designation of origin for their olive oil. The implementation of this project would valorize the specific characteristics of Istrian varieties and climate, and provide added value to Istrian brands. Similar activities were undertaken to protect Istrian cheese, so it will be interesting to evaluate our progress in the context of these activities in the next reporting period.

As of October 2012, after the dissolution of Agrokor Wines, entire exports of wine were taken over by Agrolaguna, except for the regional markets served by Jamnica. In Q4 2012, we exported 11,127 liters of wine. This positive trend continued in 2013 when we exported 44,874 liters. The wine markets we serve are: Germany, The Netherlands, Poland, Austria, Czech Republic, Lithuania, England, Ireland, Bosnia and Herzegovina, Serbia, Montenegro, and Slovenia.

We presently export our cheese to only two European countries, Austria and Germany, and it was not before our new cheese plant opened that we have become able to serve export markets. In 2013, we exported 1,188 kg and expect this segment to grow in the context of sales. We also export our olive oil to Austria, Switzerland, USA, and Germany.

#### **Materials**

#### Materials used by weight or volume - kg

Type of material used	2012	2013
Raw material	6,521,760	8,135,832
Ancillary process materials	32,692	33,666
Packaging materials (kom)	13,570,519	15,269,841
Packaging materials (kg)	4,350	4,500
Total kg	6,558,802	8,173,998
Total pcs	13,570,519	15,269,841

Kartonska ambalaža koju upotrebljavamo kao pakovinu za naše proizvode u cijelosti je proizvedena od recikliranih sirovina.

## The share of recycled raw materials used for glass production (%)

	2010	2011	2012	2013
White glass	1.15	0.82	23.89	20.97
Green glass	4.26	17.36	55.44	69.54
Olive glass	0.00	11.38	45.27	55.39

The share of recycled raw materials used for glass production increased compared to the preceding two-year period. The shares of recycled olive and green glass show a continuous increase, while the share of recycled white glass slightly decreased in 2013 compared to 2012. The reason for this decrease is probably in more stringent requirements for input material purity, i.e. there should be no colored glass admixtures.



#### **Energy**

## Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)	LPG (GJ)
2012	13,090	0	184
2013	13,614	0	1,769
Total	26,704	0	1,953

The cheese plant facility replaced heating oil by liquefied petroleum gas (LPG). As a result of increased production, our consumption increased from 1,065 GJ (average in 2010 and 2011) to 1,654 GJ in 2013. Our consumption in 2012 was fifty percent of this figure because we did not process milk for the better part of the year (while the cheese plant was reconstructed).

Except for the effect of the cheese plant, our fuel consumption was at the same level as it was in the preceding two-year period.

## Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	4,292
2013	5,589
Total	9,881

Electricity consumption recorded in the winery and the oil mill increased over the past three years, and then decreased in 2013 compared to the preceding two years. Our total consumption in this reporting period was 500 GJ higher compared to the preceding reporting period. Olive oil and must cooling machine uses substantial amounts of electricity, depending on the temperatures during harvesting. If grapes arrive in our cellar warmer, it takes more energy to cool them. In addition, the electricity consumption correlates with the amounts of processed grapes.

Significant variations were recorded in the Špin cheese plant. In 2012, it did not make cheese because it was being reconstructed, but usual farm activities were carried out and some of the electricity was used for the construction work. In 2013, we launched production in the new plant with greater capacity and additional mechanical equipment (ice water for cooling, compressor station, etc.). Our electricity consumption in 2013 was 3.8 times greater than the average consumption in the old plant and 2.35 times greater during the 2012-2013 reporting period than the preceding two-year period.

Electricity consumption recorded in PC Agriculture was approximately 6% higher compared to the preceding reporting period.

#### Water

#### Total water withdrawal by source (m³)

Year	From wells	For process purposes	From a public water supply system	Total amount of all waters withdrawn
2012	0	0	34,313	34,313
2013	0	0	53,210	53,210
Total	0	0	87,523	87,523

Water consumption recorded in the winery and oil mill shows that the amount of water used increased between 2010 and 2013. It increased by 14% in 2013 compared to 2012 and by 18% during this reporting period compared to the preceding two-year period (2012-2013 vs. 2010-2011.

Water consumption recorded in the cheese plant and on the farm was  $1,253 \text{ m}^3$  lower in 2012 than it was the year before because no milk was processed in 2012 (reconstruction).

However, our water consumption has increased rapidly as a result of launching production in the new plant. The consumption in 2013 was almost three times the average figure recorded in the case of the old plant, and 3.8 times higher than in 2012.

The amount of water used for agricultural activities decreased because the years 2012 and 2013 were very wet and we needed less irrigation.

#### **Biodiversity**

Agrolaguna does not own or use land in any protected areas or areas of high biodiversity value, so it has no direct impact

on biodiversity in such areas.

#### **Emissions, Effluents and Waste**

#### **Boiler room emissions**

### Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Production plants	311,051	356,669
Fuel for transport	250.55	281.37
LPG	11.57	111.26
CO <sub>2</sub> equivalent	311,313.12	357,061.63

The emissions from our winery and oil mill boiler rooms showed a decreasing trend over all four years. This in particular applies to  $SO_2$  emissions, the decrease in which is a result of changes in fuel quality standards. The Liquefied Petroleum Fuel Quality Regulation restricted the allowed sulfur content in fuel, which resulted in lower sulfur content in fuel supplied to us.

In 2012, fuel consumption and emissions were very low because the facility did not operate due to reconstruction for the better part of the year. After our new plant opened, the  $\rm CO_2$  emissions increased by 34% compared to our average emissions from the old boiler room as a result of increased production. At the same time,  $\rm SO_2$  emissions were 12.7 times lower as a result of replacing heating oil by liquefied petroleum gas.

Almost all natural processes result in greenhouse gas emissions as a result of the transformation of organic substances into inorganic substances. Human activities contribute to such processes as a result of using natural resources. Indirect emissions are 'latent' because they do not result from direct fuel combustion, but processes such as:

- animal food fermentation and metabolism (sheep and goat farm in St. Špin)
- fermentation or composting of plant or animal residue (plant and animal waste resulting from our agricultural activities and the milk, grape and olive processing plants)
- wastewater treatment (organic carbon from water is transformed into  $CO_2$ )
- production of input by our suppliers (packaging materials, raw materials) – energy used for production and transport and indirect emissions of other manufacturers
- generation of electricity (direct fuel combustion and again indirectly as a result of activities of other electricity producers)
- maintenance of machines and equipment (production of spare parts, using tools powered by electricity or any other form of energy).

Of course, these emissions cannot be precisely calculated or estimated. What is also relevant is the balance sheet, i.e. the difference between the emitted and bound  $CO_2$ , because it is bound by plant production. Almost all carbon contained in cultivated plants originates from  $CO_2$  bound by the photosynthesis process from the atmosphere.

## Other relevant indirect greenhouse gas emissions by weight

Year	t CO <sub>2</sub>
2012	N,A,
2013	N,A,
Total	N,A,

#### Agrolaguna uses the following refrigerants:

Location	Refrigerant	Total amount in kg
	R410a	10.8
Winery	R410a R32/125	17
	R404a	46
	R134a	114
	R410a	6
Cheese plant	R-507	360
		23

After putting into operation the new cheese plant, the amount of refrigerants increased, but this only relates to substitute R507 refrigerant.

All our NOx and SOx emissions are a result of fuel combustion, as described above.

## Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	$NO_2$	CO
2012	3,056	773	16
2013	1,422	724	37
Total	4,478	1,497	53

#### Wastewater

Wastewater is discharged into a public sewerage system and its amounts are roughly consistent with the amounts of water used by the winery and the cheese plant. A new wastewater treatment plant was installed at the cheese plant location, which significantly reduced our pollutant emissions. A wastewater treatment plant is being designed for the winery and oil mill locations, while the town of Poreč is working on establishing a municipal wastewater treatment plant. These activities are expected to further reduce our environmental impacts.

#### Total water discharge

Year	Wastewater (m³)	
2012	25,257	
2013	41,606	
Total	66,863	

#### Waste

#### Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R	Energija Gradec, Metis, Ecooperativa,	30,021	550,923
Hazardous waste	D	Ciak, Metis, Ecooperativa	4,014	32,692
Total			34,035	583,615

The increase in the amount of non-hazardous waste recorded in 2013 is mainly related to waste resulting from the treatment of water from the new cheese plant facility, which is transported for processing to the Gradec biogas plant near Vrbovec

Most of the increase in the amount of hazardous waste in 2013 is related to disposal of asbestos waste resulting from replacing part of the winery roof. We also disposed of the

oiled water resulting from cleaning the separator of oiled water flowing in from the road next to the new cheese plant. In 2012, we disposed of our old transformer that contained PCB.

The amounts of other types of waste varied over the past four years within the usual limits. Some of these variations are a result of varying dates of periodic disposal, which sometimes occur in December, and sometimes in January.

#### **Products and Services**

Agrolaguna makes food products that have no direct environmental impact. Our packaging (glass bottles, cardboard) is recyclable, as indicated by the relevant marks on such packaging. Goods are shipped by trucks in maximum amounts to reduce our environmental emissions per product unit resulting from transport.

According to the relevant regulations, food products that leave the producer's warehouse may no longer be accepted by

such warehouse as non-conforming products. Retailers and customers dispose of packaging materials by using licensed operators.

This does not apply to vegetable transport packaging, which is returned after delivery, cleaned, and then reused for packaging and delivering vegetables.

#### Compliance

No sanctions for non-compliance with any environmental laws or regulations were imposed on Agrolaguna during the reporting period.

#### **Transport**

Our environmental impact is partly a result of our vehicle maintenance activities. The amount of waste resulting from internal maintenance activities (waste oil, filters, tires, oiled cloths and car batteries) is included in the waste information. Fuel consumption by category indicates the level of our air emissions resulting from fuel combustion, which is also specified above.

## Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

Year	Fuel for transport	LPG		Total CO <sub>2</sub> emission
real	GJ	GJ	Tons of CO <sub>2</sub> equivalent for fuel	Tons of CO <sub>2</sub> equivalent for LPG
2012	8,998	184	200.55	11.57
2013	10,277	115	281.37	7.23
Total	19,275	299	481.92	18.8

#### **Environmental Protection Investments**

In 2013, we received HRK 20,742 in revenue by selling waste, while our waste disposal expenses amounted to HRK 164,231.04. Most of these costs relate to disposal of municipal waste, fuel tank cleaning performed in 2013, and deposit tank cleaning. We invested substantial funds in the new cheese plant facility, including a new wastewater treatment plant, a grease trap for removing grease in water flowing in from the road and wastewater from the kitchen of the catering establishment, and replacement of old air conditioners using Freon by new ones using environmentally acceptable refrigerants. The investment in the cheese plant amounted to HRK 34.4 million, of which HRK 3,679,264 was spent on equipping the wastewater treatment plant. We replaced another part of the winery roof, an investment worth HRK 702,710. We mounted solar panels on the roofs of the cheese plant and the winery. We also invested in the design of a wastewater treatment plant for the winery and the oil mill and obtained the relevant building permit. By mid-2014, we invested HRK 400,000 in designing documentation and obtaining permits (HRK 190,000 in 2013).

#### Total environmental protection expenditures (HRK)

Type of cost	2012	2013
Waste disposal	142,860.47	164,231.04
Wastewater analysis	6,582.77	12,884.02
Winery wastewater treatment project	0.00	190,000.00
Construction of a wastewater treatment plant for the cheese plant	3,477,030.36	202,233.45
Cheese plant wastewater treatment	0.00	100,028.46
Air emissions measuring and boiler room burner maintenance	0.00	28,704.25
ISO 14001 environmental management system certification	17,394.11	17,824.18
Replacement of the asbestos roof on the production hall	0.00	702,710.00
Total excl. of environmental charges	3,643,867.71	1,418,615.40
Environmental charges, including refundable packaging charge	2,164,011.90	2,581,480.23
Total	5,807,879.61	4,000,095.63

#### Planned Activities and main Objectives for 2014 and 2015

- · complete wastewater treatment plant project for the winery and oil mill locations; and
- continue to improve our waste sorting and disposal activities through licensed operators.

### **Agriculture**

## PIK Vinkovci d.d.

PIK Vinkovci is a company established in 1962 in Vinkovci. It has been part of Agrokor since 1994. The core activities of PIK Vinkovci include production, processing, drying and storage of crops and oilseeds, seed refinement, production of industrial plants and vegetable cultures, storage, processing and packaging of fruits and vegetables, and cattle farming.

PIK conducts its business in the Counties of Vukovar-Srijem, Zadar and Međimurje. In April of 2013, the Belica purchasing center was merged into PIK Vinkovci, followed by the Polača purchasing center and later by Kašteli. In January of 2012, the Zvirinac baby beef fattening farm (Privlaka) rejoined PIK. In order to align its business operations with its environmental activities, the company uses integrated agricultural production: we ensure that waste is properly sorted and disposed of and monitor the consumption of all forms of energy and the quality of our wastewater. Our commitment was confirmed by the certification of our ISO 14001:2004 system in 2010. To make sustainable development possible, we set specific objectives each year, and their control and implementation largely contribute to the mitigation of our impacts on all components of the environment.

Our integrated management systems represent the implementation of the ISO 14001 environmental management system in the existing ISO 9001 quality management system, HACCP and Global GAP. In addition to regular audits

conducted in 2011 and 2012, our environmental management system was recertified in 2013. Our food quality and safety management system was initially certified in 2006 and then recertified in 2009 and 2012. Our Global GAP (Good Agricultural Practice) has been recertified once a year since 2008 in the case of agriculture and vegetable farming, and in the case of cattle farming since 2012.

The most important objectives achieved during this reporting period are:

- · rehabilitation of the underground fuel tank
- reduction of noise emissions in Lipovac by building a noise barrier
- maintenance and improvement of wastewater quality by installing an oil separator in the location at Matije Gupca Street in Vinkovci
- intensified education, awareness raising, professionalism building and communication in the context of environmental protection, including various internal and external training sessions
- enhanced emergency preparedness as a result of firefighting tank reconstruction.

#### **Materials**

#### Materials used by weight or volume (kg)

Type of material used	2012	2013
Raw material	55,564,123	62,205,100
Ancillary process materials	24,736,243	28,020,487
Packaging materials	415,784,400	502,925,420
Total	496,084,766	593,151,007

#### Materials used for production (kg)

Type of material used	2012	2013
Agriculture and vegetable farming		
Seed	7,520,148	8,095,176
Plant protection agents	46,993	50,253
Mineral fertilizer	2,956,047	3,465,509
Manure	5,155,780	6,877,401
Lubricants	19,830	20,509
Refinement		
Natural seed	7,370,136	6,645,100
Wheat mill		
Wheat	28,131,140	27,709,698
Corn mill		
Corn	9,055,880	16,151,010
Cattle farming		
Gilts	221,928	209,380
Pigs	2,555,730	3,005,175
Calves	709,161	389,561
Feed	14,466,873	15,232,958
Straw	2,090,720	2,373,857
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#### Packaging materials placed on the market (kg)

Type of material used	2012	2013
Paper/cardboard	316,414.33	365,888.84
Wood	4,560.00	21,346.00
Textile	352.00	560.50
Plastic bags	0.00	1,530.00
Other polymer materials	94,458.07	113,600.08
TOTAL	415,784,40	502,925,42
Charge in HRK (according to RTAPPM)	190,235,73	227,989,35

RTAPPM – Registry of the Types and Amounts of Packaging Placed on the Market – Packaging and Packaging Waste Ordinance 97/05 (115/05; 81/08; 31/09; 38/10; 10/11;81/11; 126/11;38/13;86/13); Quarterly reports are submitted and charges are paid to the Environmental Protection Fund.

Our scope of production increased during this reporting period because it extended to our newly merged locations, which also directly increased the amount of ancillary process mate-

rials. The amount of packaging materials also increased as a result of an increasing number of new products. PIK Vinkovci did not use any recycled input materials.

## Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)	LPG (GJ)
2012	36,882	13,855	5,071
2013	43,230	20,723	3,841
Total	80,112	34,578	8,912

#### Fuel consumption in 000

Fuel	2012	2013
Heating oil, crude oil, lubricants (I)	158	275
Euro diesel (I)	68	85
Blue diesel (I)	982	1052
Natural gas (m³) + LPG	485	630

Our consumption of blue diesel as a cheaper source of energy increased compared to the preceding reporting period as a result of the above-mentioned expansion of production to new locations, while Euro diesel consumption decreased. We recorded an increase in our gas consumption during the 2012-2013 period, mostly as a result of merging three pig farms, two of which use natural gas for heating and one uses LPG, and a baby beef fattening farm that also uses LPG. We observed a significant decrease in crude oil consumption in 2012 as a result of a very dry year that caused a decrease in our seed corn and popping corn production using this form of energy for drying.

## Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)	Electricity (kWh)
2012	22,822	6,424,728
2013	25,536	7,093,346
Total	48,358	48,358

#### **Energy**

## Summary of electricity consumption for 2011-2013 related to production (kWh / kg)

Month	2012	2013
January	0.12	0.2
February	0.09	0.14
March	0.10	0.03
April	0.10	0.04
May	0.09	0.07
June	0.02	0.04
July	0.03	0.03
August	0.05	0.02
September	0.02	0.02
October	0.02	0.04
November	0.04	0.03
December	0.14	0.11
Total	0.04	0.06

Electricity is used in all our plants for operating electric motors in production and processing (refinement), and also,

although to a lesser extent, for heating. By expanding our activities to include cattle farming and extending to new locations in 2011, we have recorded a constant increase in the consumption of this form of energy. We recorded an increase in electricity consumption per product unit in 2012 compared to the preceding reporting period, and then again a decrease in 2013.

## Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Steam (MWh)
2012	0
2013	0
Total	0

PIK Vinkovci uses steam in its technological process of drying crops and oilseeds in the Silo, which it generates in its internal power plant (energy: crude oil – LUS II).

#### Water

#### Total water withdrawal by source (m³)

Year	From	For process purposes	From a public water supply system	Total amount of all waters withdrawn
2012	0	1,060,867	0	1,060,843
2013	0	965,234	5148	970,382
Total	0	2,026,077	5,148	2,031,225

#### Sanitary water consumption

Year	Sanitary water (m³)
2012	115,843
2013	107,382
Total	223,225

#### Irrigation water (000 m³)

Water withdrawal site	2012	2013
Own wells	65	40
Bosut River	414	404
Spačva River	466	419
Total	945	863

In 2012, we withdrew water for process purposes from our own wells at all analyzed locations. The Andrijaševci 1, Andrijaševci 2 and Čeretinci pig farms and the Zvirinac baby beef fattening farm use water from their own wells. Water is treated on pig farms and used in production, while cattle

farm uses raw water, without any treatment. We use water from the Bosut and Spačva rivers and ground water withdrawn from our own wells (Čeretinci, Markušica) to irrigate our agricultural areas. In late 2013, the Sopot location was connected to the city water supply system and well water has been used only as process water for washing handling areas and agricultural machinery. In May of 2013, our location in Vinkovci was connected to the public water supply system and wells have only been used for hydrant network purposes. Our Otok location also withdraws water from its own well and uses it as processing water in the preparation of plant protection agents in production areas. The Belica and Polača locations use water from the public water supply network. As the year 2012 was quite dry, our consumption of water for irrigation purposes increased compared to 2013. In 2013, we reduced water consumption on farms (by 17,014 m<sup>3</sup>) because we had to repair a pump defect on the Andrijaševci 2 farm.

#### **Biodiversity**

PIK Vinkovci does not have any land owned, leased or managed in any protected areas, so its activities have no impact on

biodiversity in such areas.

#### **Emissions, Effluents and Waste**

## Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq,)	2012	
Production plants	1,344	1,873
Fuel for transport	3,784	4,422
LPG	335	179
CO <sub>2</sub> equivalent	5,128	5,893

#### CO<sub>2</sub> emissions (kg/year)

Point of emission	2012	2013
Boiler type 300	339,982.29	548,175.61
Boiler type 500	14,781.84	58,874.93
Gas drying kiln	Nije radila	344,577.35
Drying kiln Law	31.748.99	79,023.46
Air heater	-	5,642.80
Neovulkan	65,135.30	52,652.80
Boiler Viessmann Vitoplex 100 PV1, A1	146,742.09	114,721.41
Boiler Viessmann Vitoplex 100, A1	146,742.09	114,721.41
Boiler Viessmann Vitocrossal 300CT3, A2	132,141.39	136,819.72
Boiler Viessmann Vitoplex 300 TX3, A2	132,141.39	136,819.72
Boiler 1 Viessman Vitoplex 100 PV1, F-Č		
Boiler 2 Viessman Vitoplex 100 PV1, F-Č	167,318.40	140,635.38
Kotao 2 Viessman		
Vitoplex 100 PV1, F-Č	167,318.40	140,635.38
Total:	1,344,052.18	1,873,299.97

Our boilers type 300 and 500 and our Sopot boiler are powered by crude oil. Reduced  $CO_2$  emissions were recorded in the case of boiler type 500 as a result of reduced fuel consumption and less hours of operation during this reporting period. The most

recent emissions measuring was conducted in November of 2013. The test results showed that the emission concentrations were in excess of the limits in the case of  $NO_2$  emissions produced by boilers and  $CO_2$  emissions produced by the air heater. As we detected excessive gas emissions, we plan to replace this source of energy by an environmentally more acceptable source of energy in the next period, i.e. replace crude oil by natural gas. The next measuring is scheduled for November 2015. In 2012 and 2013, we monitored the emissions from boilers on our farms. The emission concentrations measured on our boilers (Vitoplex 100, 100 PV1, 300 TX3, Vitocrossal 300 CT3) were within the required limits. The next measuring is scheduled for October 2014. The measuring of emissions from our drying kilns was conducted in November of 2009 and the next measuring is scheduled for November 2014.

### Other relevant indirect greenhouse gas emissions by weight

Year	t CO <sub>2</sub>
2012	0,319
2013	0,401
Total	0,720

#### Fuel consumption (000 L)

Fuel	2012	2013
Heating oil, crude oil, lubricants (I)	158	275
Euro diesel (I)	68	85
Blue diesel (I)	982	1052
Fuel – passenger cars	102	128

The increase in consumption of fuel and other sources of energy is associated with the above-mentioned merger of new profit centers, which also resulted in more company vehicles and more visits to these new production sites located in different places.

#### Conversion of fuel emissions to kg (methods ISO 12039:2003)

Francest	20	12	2	2013
Energent	L	CO₂ coefficient	L	CO <sub>2</sub> coefficient
Heating oil, crude oil, lubricants (I)	158	495,014	275	861,575
Euro diesel (I)	68	213,044	85	266,305
Blue diesel (I)	982	3076,606	1052	3295,916
Fuel – passenger cars (I)	102	319,566	128	401,024

## Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	$NO_2$	CO
2012	3,84	1,14	0,20
2013	3,38	2,04	1,09
Total	7,22	3,18	1,29

#### Other relevant air emissions

Point of emission	1	NO <sub>2</sub> (kg/year)
	2012	2013
Boiler type 300		
Boiler type 500		
Drying kiln Law		
Neovulkan	29.64	34.01
Air heater	-	3.21
Boiler Neovulkan-Sopot	29.64	34.01
Boiler Viessmann Vitoplex 100 PV1, A1	76.09	59.5
Boiler Viessmann Vitoplex 100, A1	51.49	40.26
Boiler Viesmann Vitocrossal 300CT3, A2	44.59	46.17
Boiler Viessmann Vitoplex 300 TX3, A2	61.84	64.04
Boiler 1 Viessman	1,060.00	1,328.00
Vitoplex 100 PV1, F-Č	89.75	67.40
Boiler 2 Viessman		
Vitoplex 100 PV1, F-Č	87.19	65.48
Total NO <sub>2</sub>	1,142.21	2,045.59

#### Other relevant air emissions

Point of emission		SO <sub>2</sub> (kg/year)
	2012	2013
Boiler type 300	3,663.33	2,983,16
Boiler type 500	171.47	390.39
Air heater	-	0.36
Neovulkan	4.16	3.36
Total SO <sub>2</sub>	3,838.96	3,377.27

Point of emission		CO (kg/year)
	2012	2013
Boiler type 300	74.06	336.91
Boiler type 500	2.70	7.1
	Did not operate	0
Drying kiln Law	2.04	5.09
Air heater	-	5.26
Neovulkan	56.66	684.51
Boiler Viessmann Vitoplex 100 PV1, A1	11.51	9.0
Boiler Viessmann Vitoplex 100, A1	19.63	15.35
Boiler Viessmann Vitocrossal 300CT3, A2	9.16	9.48
Boiler Viessmann Vitoplex 300	10.72	11.1
Boiler 1 Viessman	-	0.36
Vitoplex 100 PV1, F-Č	9.97	7.48
Boiler 2 Viessman Vitoplex 100 PV1, F-Č	9.2	6.91
Total CO	205.65	1,098.19

#### Wastewater

#### **Total water discharge**

Year	Wastewater (m³)
2012	16,719
2013	19,091
Total	35,810

In 2013, the Vinkovci location was connected to a public sanitary wastewater drainage system via a collector. An oil separator was installed at the location for treating precipitation water before discharging it into the precipitation drain. As a result of such changes, we applied for an adjustment to our water license in December of 2013. At the Sopot location, process wastewater resulting from washing machinery and handling areas is discharged into a channel via a separator. Otok has generated no wastewater since 2012. The Lipovac location discharges its wastewater resulting from vegetable washing into a channel via a deposit tank.

## Results of measuring COD and BOD in wastewater (mg O2/I by BOD and COD in wastewater)

2	012		2013
COD	BOD	COD	BOD
17.17	1.35	<30	4.94
21.66	1.95	36	9.5
3.1	1.95	24.45	1.59
14	7.84	<30	7.72
20.45	7.02	<30	2.39
-	- 	<30	1.67
	21.66 3.1	17.17 1.35 21.66 1.95 3.1 1.95 14 7.84	COD         BOD         COD           17.17         1.35         <30

Our farms generate wastewater as a result of treating water discharged into the precipitation drain after the deposit tank. Analyses are conducted for all discharged wastewater according to our valid water licenses. The values of the analyzed parameters were found to be within the required limits. Our valid water licenses are as follows: Sopot – the license expires on August 20, 2017; Otok – the license expires on April 10, 2022; in the case of sanitary wastewater at the Silo and New Mill locations, the license expires on September 1, 2016; Lipovac – the license expires on May 3, 2021.

#### Waste

#### Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R	Drava I., Unijapapir, Eko-flor, Agrovet, CeZaR, Gumiimpex	257,700	186,745
Hazardous waste	D	Ciak, Komunalije Hrgovčić, Ina maziva, Metal Zec	34,959	18,308
Total			292,659	205,053

To increase the efficiency of our waste sorting activities in 2012 and 2013, we increased the number of waste types, but the total amount of waste was reduced. Waste is temporarily disposed of in precisely defined and coded places. Further disposal and recovery of such waste is carried out as required

by law, including a registry and supporting sheets. The amounts of waste generated between 2010 and 2013 as a result of company's activities are specified in Table 4, including a summary by type of waste. All waste generated was collected by a licensed operator to be recovered and disposed of.

#### Hazardous and non-hazardous waste

Masta	Turn of weeks	Waste (kg/year)			
Waste code	Type of waste	2010	2011	2012	2013
02 01 08*	Agrochemical waste			0	221
13 02 05*	Mineral-based non-chlorinated engine, gear and lubricating oils	11,390	7,560	7,740	5,380
13 05 02*	Sludge from oil/water separators	0	14,000	980	0
13 05 07*	Oily water			17,460	700
13 08 99*	Waste not otherwise specified		•	0	1,158
15 01 10 *	Packaging containing residues of or contaminated by dangerous substances	9,000	8,393	6,098	7,217
15 02 02*	Absorbents, oily waste	362	719	1,707	1,320
16 01 07*	Oil filters	415	2,060	0	239
16 02 11*	Discarded refrigerators	0	0	0	30
16 02 13*	Electronic waste	760	620	0	830
16 05 06*	Laboratory chemicals		•	0	37
16 06 01*	Lead batteries	982	0	0	0
16 07 09*	Waste containing other dangerous substances	400	0	0	0
18 02 02*	Infectious waste	0	0	974	1,166
20 01 21*	Fluorescent tubes and infrared bulbs	0	0	0	10
	Total Hazardous waste	23,309	33,352	34,959	18,308
02 01 02	Animal-tissue waste	0	0	96,780	98,592
02 01 04	Waste plastics	0	0	0	260
12 01 01	Ferrous metal filings and turnings	12,980	41,600		
15 01 01	Paper and cardboard packaging	31,500	12,660	44,320	47,780
15 01 02	Foil, plastic bags	5,920	3,380	6,780	15,180
16 01 03	End-of-life tires	4,280	3,800	0	6,340
16 01 17	Ferrous metal	13,880	0		
17 04 02	Aluminum	1,220	0	•	
17 04 05	Iron and steel	22,600	70,520	97,940	12,430
17 06 04	Insulation materials	0	0	0	4,800
18 02 03	Pharmaceutical waste	0	0	1,380	1,123
20 01 01	Paper and cardboard	960	7,940	10,500	240
	Total Non-hazardous waste	93,340	139,900	257,700	186,745
	Total Waste	116,649	173,252	292,659	205,053

#### **Spills**

PIK Vinkovci did not record any spills during the relevant reporting period.

By setting general and specific environmental objectives and monitoring their implementation by using a performance monitoring program, we substantially mitigate our environmental impacts. Important objectives set for and achieved within the reporting period are:

- reconstruction of the underground fuel tank at M. Gupca Street in Vinkovci
- replacement of the manure cover on the Čeretinci pig farm
- construction of a noise barrier in Lipovac, whereby we reduced the noise level by 10 dB
- rehabilitation of the firefighting water tank at M. Gupca Street in Vinkovci
- improvement of drinking water quality in Sopot by connecting to the city water supply system
- installation of a precipitation wastewater treatment separator

training an internal auditor for our environmental management system

#### **Products and Services**

PIK Vinkovci is not authorized to reclaim packaging from its customers or to recover and/or dispose of it. It therefore pays charges to the Environmental Protection Fund for disposal of its packaging placed on the market.

#### **Compliance**

No fines or sanctions were imposed on PIK Vinkovci for non-compliance with any environmental laws or regulations during the reporting period.

#### **Transport**

Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

Year	Fuel for transport	LPG		Total CO <sub>2</sub> emission
	GJ	GJ	Tons of CO <sub>2</sub> equivalent for fuel	Tons of CO <sub>2</sub> equivalent for LPG
2012	3.109	0.39	0.222	0.017
2013	3.887	0.23	0.278	0.010
Total	6.996	0.62	0.50	0.027

PIK Vinkovci does not engage in transportation of goods. Goods are transported by our customers or transport services are outsourced. Agricultural machinery (tractor + trailer), trucks and forklift trucks are used for internal transport of goods. The company had 45 company cars in 2012, compared to 47 in 2013. For all these modes of transport, we used 102,413.00 liters of fuel and 10.1 m³ of gas in 2012, compared to 128,030.00 liters of fuel and 5.47 m³ of gas in 2013. This increase in fuel consumption is associated with the merger of the new locations into PIK Vinkovci.

#### **Energy consumption for Transport**

	Number of cars	Fuel (000 liters)	Gas (m³)
2012	45	102	10,1
2013	47	128	5,47

#### **Environmental Protection Investments**

#### Total environmental protection expenditures and investments by type (HRK)

	2012	2013
Waste disposal, emissions treatment and rehabilitation costs		
Air emission charges (SO <sub>2</sub> )	297,22	1,073,81
Air emission charges (NO <sub>2</sub> )	114,86	234,08
Air emission charges (CO <sub>2</sub> )	19,166,63	-
Air emission measuring	6,402,00	3,500,00
Water charges	586,337,75	645,558,91
Wastewater analyses	8,810,00	8,660,00
Waste management costs	395,132,94	325,344,00
Total waste disposal, emissions treatment and rehabilitation costs	1,016,261,40	984,370,80
Environmental prevention and management costs		
ISO 14001 certification	10,200,00	16,500,00
EMS training	5,500,00	-
Fire protection	-	85,000,00
Investments in waste management	2,000,00	2,300,00
Environmental impact assessment, IPPC, EMS, etc.	10,573,00	55,000,00
Total environmental prevention and management costs	28,273,00	157,100,00
Total	1,044,534,40	1,141,470,80

Our waste disposal costs increased compared to the preceding reporting period as a result of increased production, which in turn resulted in greater amounts of different types

of waste, but also as a result of disposing of waste resulting from the reconstruction of our burned warehouse in Lipovac.

#### Planned Activities and main Objectives for 2014 and 2015

- To enhance our emergency preparedness
  - · renew firefighting equipment
  - renovate present car battery charging station
  - · refurbish gas bottle storage facility
- To improve our waste management system
  - procure new waste containers at  $\boldsymbol{M}.$  Gupca
- To maintain and improve our wastewater quality
  - procure a new oil/grease separator for the Sopot location
- To procure a mobile oil pump for the Zvirinac farm
- To enlarge the present manure depository on the Zvirinac farm
- · To replace the asbestos panels
- To prepare project documentation to replace our primary energy used by our power plants by an environmentally more acceptable source of energy
- To prepare project documentation to increase energy efficiency with respect to electricity (reactive power compensation)

### **Agriculture**

# Vupik d.d.

Vupik is an organization with a tradition dating back to 1945 when the Federal Agricultural Estate Vukovar was established. Only five years later, Vupik was in possession of 3,000 ha of farmland. PIK Vukovar was organized in 1964 and its agricultural land expanded to 6,048 ha (bought between 1964 and 1984) following a process of enlargement and redistribution. In 1974, Vupik began to build two silos (Dunav and Đergaj), slaughterhouses and pig and cattle farms, new vineyards were planted, and a winery including a bottling plant was built. In early 1980, Hotel Dunav was built in the center of Vukovar, whereby the company expanded its activities to tourism. Vupik suspended its operations during the Homeland War but was reorganized in 1994 as a joint-stock company controlled by the Croatian Privatization Fund. Following the reintegration process in 1998, Vupik resumed its production and became part of The Agrokor Group in

Agricultural production in Vupik is divided between the following profit centers: PC Agriculture and Vegetable Farming including its business units Ovčara, Bobota and Grabovo; PC Winegrowing and Winemaking including its business units Winery and Winegrowing-Jakobovac; PC Pig Farming including its four business units/farms: Ovčara 1, Ovčara 2, Bobota and Pačetin; PC Cattle Farming including five farms: Jakobovac, Klisa and Dubrava for dairy production, Bobota for cattle fattening, and Lovas for baby beef breeding; PC Transshipment Port including three business units: Maintenance, Dunav Silo and Bobota Silo. A cooperative operates as part of this profit center, including four business units in Vukovar, Bobota, Čakovci and Trpinja, and its BU Tourism and Hospitality, which operates the Goldschmidt wine company.

The organization confirmed its commitment to environmental protection by adopting the Environmental Management Policy and by proceeding to organize its Management System Department as early as at the end of 2013 as a central department responsible for the integrated systems due to the company's scope of activity and complexity.

As regards the objectives set for 2012 and 2013, Vupik achieved the following:

- On February 15, 2013, Vupik had its ISO14001:2004 standard certified. The certification covered all its locations, which was more than planned (only the pig farms and BU Vegetable Farming were planned to be certified);
- The reconstruction of PC Transshipping Port/Silos and the transshipping dock was completed;
- · The winery was equipped.

In 2013, Vupik achieved the objectives set in late 2012:

- We implemented the Global G.A.P. standard in PC Pig Farming and PC Agriculture and Vegetable Farming. We had nine crops certified according to the principles of this system;
- We installed water meters in all Vupik locations where wells are present;
- We prepared studies to obtain six concessions for withdrawing water for process purposes;
- We prepared water license studies for eleven locations;
- We prepared policies for the disposal of all types of waste resulting from our technological processes and wastewater treatment processes for all locations;
- We prepared waste management plans for all fifteen of Vupik locations;
- We developed operational plans in case of sudden and extraordinary water contamination;
- We collected bids for wastewater treatment concepts and technological solutions for the BU Agriculture Ovčara and the BU Agriculture Bobota locations;
- In 2013, Vupik obtained five water licenses for BU Winemaking, Cattle Farms Bobota, Jakobovac and Dubrava and BU Dunav Silo, and a decree from Hrvatske vode Osijek for BU Winegrowing Jakobovac stating that no water license is required;
- We installed a telemetric water consumption reading system at our cattle farm in Klis.

As far as the plans envisaged for this reporting period which were not accomplished are concerned, we failed to build a wastewater treatment plant in PC, Agriculture and Vegetable Farming due to insufficient funding and have also not built a vegetable storage facility.



#### **Materials**

#### Materials used by weight or volume - kg

Type of material used	2012	2013
Input	81,660.80	101,846.39
Ancillary process materials	22,710.00	20,573.00
Packaging materials	2,941,296.16	3,394,581.90
Total	85,862,203.59	105,965,223.52

The amounts of raw materials, ancillary process materials and packaging materials increased during the reporting period compared to the preceding reporting period as a result of increased production volumes.

## Percentage of materials used that are recycled input materials (%)

Type of material used	2012	2013
Cardboard packaging	13.37	20.24
PVC – packaging materials	2.0	1.81

The percentage of recycled cardboard packaging was for the first time included in the Report in the above table. It refers to recycled packaging material made of cardboard used for packing finished products (wine) in the winery, the only unit making finished products in Vupik d.d.

This percentage was calculated as the share of recycled cardboard packaging in the total amount of cardboard packaging used.

#### **Energy**

## Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)	LPG (GJ)
2012	56,209	32,400	0
2013	58,282	29,100	0
Total	114,491	61,500	0

The amount of fuel used decreased compared to the preceding reporting period because we replaced our old agricultural machinery by new machinery.

The gas consumption was balanced after we built a drying kiln in Silo Dunav and started using our full capacities on the pig farms. As we were unable to plan our actual consumption before the end of the investment cycle, gas consumption will be stabilized during the next reporting period.

## Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	240,124
2013	231,458
Total	471,582

No significant variations were recorded in our electricity consumption compared to the preceding reporting period.

During the preceding reporting period, we took electricity consumption as an important factor, and by deregistering, registering and merging various measuring points, we got rid of the unnecessary ones. In doing so, we brought consumption on new farms close to the levels recorded in the preceding reporting period.

#### Water

#### Total water withdrawal by source (m³)

Year	From a lake	From wells	From a public water supply system	Total amount of all waters withdrawn
2012	852,064	237,820	18,655	1,108,539
2013	933,700	272,429	15,474	1,221,603
Total	1,785,764	510,249	34,129	2,330,142

During the reporting period, Vupik increased the amounts of irrigation water withdrawn from a lake. The amount increased as a result of dry years. The amount of water in the lake was not sufficient to meet our irrigation needs, so 40-50% of

the water used was withdrawn from the Danube, which ultimately resulted in higher production costs.

#### **Biodiversity**

The total surface area of the land farmed by Vupik is 7,338.60 ha. Vupik owns 212.64 ha. Vupik leases 4,386 ha of farmland and uses 2,739.63 ha on the basis of one-year contracts. 500 ha is used for vegetable farming (potatoes, carrots, peas, onions and sweet corn) and our crops are irrigated from the nearby Lake Grabovo. None of the plots are in or adjacent to any protected area.

The documents confirming that Vupik's activities have no significant impact on biodiversity and the documents relating

to the construction of our new production facilities are the Environmental Impact Studies prepared for our newly built pig farms Bobota, Pačetin and Ovčara. PC Pig Farming is subject to the IPPC Directive and is in the process of obtaining all licenses required to obtain an environmental license. We have obtained all integrated environmental requirements authorizations from the Ministry of Environmental Protection and Physical Planning for all our pig farms.

#### **Emissions, Effluents and Waste**

## Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Production plants	2,084	2,140
Fuel for transport	122	125
LPG	0	0
CO <sub>2</sub> equivalent	2,206	2,265

We reduced our  $CO_2$  emissions as a result of closing the BU Hotel location, the BU Winemaking location uses natural gas instead of heating oil, and PC Agriculture and Vegetable Farming replaced its outworn machinery by new machinery, thus reducing its environmental pollution levels.

Vupik does not use any ozone depleting refrigerants.

## Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	$NO_2$	CO
2012	0	0.449	0.093
2013	0	0.397	0.082
Total	0	0.846	1.021

The emissions were calculated on the basis of measuring of emissions and energy consumption for BU Winemaking. The information was delivered to the Environmental Pollution Registry (EPR), which we are required by law to do by March 1 of each year for the preceding year.

#### Wastewater

#### Total water discharge

Year	Wastewater (m³)
2012	22.500
2013	23.100
Total	45.600

The results of all wastewater analyses were within the required limits compared to the preceding reporting period. This was also a result of our Management System Department's active involvement in marking wastewater sampling points in the field. Such good results provided us with five water licenses obtained by Vupik from Hrvatske vode Osijek. Vupik's wastewater has been analyzed by the Public Health Institute Sveti Rok of Virovitica since 2012.

#### Waste

#### Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R	EFP, L91, UM, DI, HR, M, CeZaR, TK	183,113	192,279
Hazardous waste	D	Ciak, SM, Flora	17,206	18,258
Total			200,319	210,537

The amounts of non-hazardous waste collected during the reporting period show an increasing trend. The amount of paper and PVC foil disposed of increased ten times compared to 2010. The amounts of hazardous waste decreased by 50% compared to the preceding reporting period. We ensure that

our animals are healthy and reduce our use of medicines and infectious and pharmaceutical wastes.

Vupik did not record any significant spills of oil, fuel, waste, chemicals or the like.

#### **Products and Services**

As a result of building a new gas-powered drying kiln that began to operate in 2012, we no longer use heating oil. In 2012, we purchased five new Fendt tractors to replace old and outworn tractors, thus reducing our  $CO_2$  emissions. In early 2012, we launched intensive environmental training and awareness programs and began to implement the ISO 14001 requirements, so we formed eco-islands and raised our

employees' awareness of the need to sort waste by the end of 2012. These efforts are reflected in an increased amount of useful waste collected (ten times more) and began to provide us with financial benefits.

Vupik does not have a recycling system and does not reuse materials in its production processes.

#### **Compliance**

In 2012 and 2013, Vupik did not record any cases of statutory non-compliance in the context of environmental protection. No cases of non-compliance with any laws were found in any of the locations visited by environmental inspectors. All requested documents and information were presented to such inspectors. Our Management System Department monitors

environmental regulations on a daily basis on the website of the Official Gazette (Narodne novine), as required by ISO 14001:2004. We ensure that our employees are trained to achieve continuing progress and development, which we believe is very important.

#### **Transport**

The transport systems of all companies cause environmental impacts and so does Vupik's as well. Transport activities produce certain air emissions (we focused on  $CO_2$  emissions as primary emissions resulting from fuel combustion). Vupik

has 34 passenger cars, compared to the preceding reporting period when we had 33. Our employees travel to work using their private cars or public transport. We outsourced our freight transport activities to Beljetrans of Belje.

Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

Year	Fuel for transport	LPG		Total CO <sub>2</sub> emission
1001	GJ	GJ	Tons of CO <sub>2</sub> equivalent for fuel	Tons of CO <sub>2</sub> equivalent for LPG
2012	5,049	0	194,060	0
2013	6,758	0	259,749	0
Total	11,807	0	453,809	0

#### **Environmental Protection Investments**

#### Total environmental protection expenditures and investments by type (HRK)

	2012	2013
Waste disposal, emissions treatment and rehabilitation costs		
Charges for CO₂ emissions	10,215.80	10,215.80
Waste management costs	153,786.32	198,493.60
Water use charges	265,556.40	269,584.60
Total waste disposal, emissions treatment and rehabilitation costs	429,558.52	478,294.00
Environmental prevention and management costs		
Certification	25,883.75	50,581.78
Training and Education	16,557.70	0.00
Environmental impact studies, integrated environmental requirements	0,00	0.00
Total environmental prevention and management costs	42,441.45	50,581.78
Total	471,999.97	528,875.80

The amount of charges payable for  $CO_2$  emissions in 2012 and 2013 was the same. It however increased compared to the preceding reporting period as a result of  $CO_2$  emissions from the pig farms that have operated with full capacity since late 2011. In 2015, the Environmental Protection and Energy Efficiency Fund will issue a final resolution for 2013,

so the figures provided in the table will change as the above figures only reflect a flat amount according to a provisional calculation made by the Fund. Our water charges increased as a result of increased production capacities compared to the preceding reporting period, but became stable during this period.

#### Planned Activities and main Objectives for 2014 and 2015

- completion of the reconstruction process of the PC Silo storage facility installing a new truck scale
- irrigation an investment worth HRK 15,000,000 Phase 1 (the total investment is worth HRK 29,000,000)
- Opatovac farm an investment worth HRK 35,000,000
- to build wastewater treatment plants in two locations BU Ovčara and BU Bobota.
- to prepare project documentation required to obtain water licenses and concessions for wells
- · to check the sewerage system in some of Vupik's facilities for watertightness by June of 2016, as required by law
- to obtain an ISO 9001 certificate
- to have our HACCP system in BU Winery certified

### **Agriculture**

## Kor Neretva d.o.o.

Kor Neretva is a limited liability company engaged in agriculture and trade, established on May 1, 2013 and having its registered office in Opuzen. Kor Neretva merely continues a ten-year story of Konzum's and Agrokor's (Konzum is 100% owned by Agrokor) presence in the Neretva Valley. The company has changed several names in the past ten years (Konzum DAD, Neretva Fructus, AgroFructus), but continued performing the same business operations, so that all our envisaged accomplishments and plans remain the same. Kor Neretva engages in buying fresh fruits and vegetables across the region, approximately 50.000 tons of fresh fruits and vegetables annually. We are the leading mandarin buyer, and this line of business accounts for 50% of the company's annual turnover. The company presently employs 55 persons and operates a modernly equipped buying center in Opuzen.

While continuously improving the quality and increasing the sale of fruits and vegetables in the local and international markets, we aim to conduct our business operations according to internationally recognized quality control standards to guarantee safety and hygiene of our agricultural food products. Kor Neretva's success story includes the first Global GAP certificate obtained in Croatia back in 2006 (the company operated under the name of Konzum DAD at the time) awarded for its mandarin production. Even back then, the company demonstrated its long-term commitment to its products and the environment, optimization of electricity and water consumption, and municipal waste management. All Global GAP certified contractors adhere to the good agricultural practice guidelines and are fully aware of the importance of establishing and maintaining this standard. Having undergone a stringent selection process, they were trained in the course of several seminars in responsible management of natural resources, protection of natural habitats, maintaining high hygienic standards during harvesting, rational use of fertilizers and pesticides, hazardous waste disposal, etc.

We are proud to highlight the fact that, as a Tesco's supplier, we fulfilled all requirements to be certified according to the Tesco Nature (TN) standard in mandarin production and distribution back in 2008. Five of our contractors have been certified according to this standard since that year when we still

operated under the name of Konzum DAD. Having been certified according to this standard, we demonstrated our ability to meet the most stringent requirements imposed by large retail chains. In addition to its integrated quality system, Kor Neretva monitors the implementation of all standards. In addition to the standards for which we have been certified, our integrated system also includes HACCP and some parts of the ISO 9001 management system. As we are not required by law to have these systems certified, we established and implement them internally for the purpose of reducing our costs. After we separated from AgroFructus, we only retained our Global GAP certificate for our production of mandarins, our primary export product. Further extension of the Global GAP system to new products and producers will depend on our customers' demands.

For the purpose of further positioning the Neretva mandarin on the international market, in 2009 we launched a project to protect the mandarin's geographic origin in cooperation with the Faculty of Food Technology and Biotechnology in Zagreb. Soon afterwards, FAO joined this project, primarily conducted by the Association of Mandarin Producers. In 2013, we successfully completed the project and registered protected designation of origin for Neretva mandarin. We are currently in the process of registering the protection at the EU level.



#### **Materials**

Kor Neretva aims to reduce the share of disposable packaging and increase the share of reusable plastic packaging. We are continuing this increasing trend of using reusable packaging. Our plastic (RPC) packaging is fully reusable and is subjected to a supplier (cleaning and disinfection) – Kor Neretva (arranging products) – customer (emptying, shipping to the supplier) cycle. When RPC packaging is received in Kor Neretva, 4% of it is not suitable for further use as a result of damage and is temporarily stored in Kor Neretva's purchasing centers and periodically returned to suppliers.

Cardboard packaging is disposable and its useful life ends after it reaches the final customer (retail store). During transport or as a result of a manufacturing error, the suppliers (producers) of such cardboard packaging deliver 2% non-compliant packaging, which is also temporarily stored and periodically shipped to recycling yards as waste.

We have been increasingly using reusable plastic packaging for packing our fruits and vegetables lately, which has resulted in a decrease in the use of cardboard boxes by 52%.

However, as we export over 70% of our mandarins, we mostly use cardboard packaging to pack them. The cardboard boxes we use are made of fully recycled cardboard, and the polyethylene (plastic) packaging which we use can also be recovered very efficiently.

Fruits and vegetables	2013 (May 1 to Dec. 31)
Fruits	15.141 t
Vegetables	9.967 t
Total	25,109 t
Packaging materials in 000 units	
Cardboard boxes (units)	205
Wooden crates (units)	66
Reusable plastic packaging	948
Miscellaneous (vessels, inserts, strings, ribbons, etc)	1,128

#### **Energy**

Due to the specific nature of its business operations, most of the electricity used by Kor Neretva to operate its cooling equipment is supplied by HEP. Kor Neretva has five electric cooling chambers. These chambers also need small amounts of water to provide sufficient humidity. This humidification mode runs for two to three minutes a day.

Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

		Electricity
Year	kW	GJ
2013 (do 1,5, do 31,12)	995,915	584,950

Over the years, we recorded a decrease in electricity consumption as a result of continuous efforts in raising the awareness of our employees concerning saving methods and purchasing modern, more energy-efficient equipment. We aim to continue undertaking such measures to reduce our average energy consumption per product unit at a rate of no less than 10% annually.

During the reporting period, we used 15,001 kg of gas from a tank and 13,220 kg of gas from bottles. Most of this gas was used to operate our thermo-tunnel for drying mandarins after washing and to operate forklift trucks.

We have not incurred any fuel costs since 2013 when Kor Neretva was established and begun to operate apart from the rest of the AgroFructus system. Kor Neretva outsources the transport of its products to its final customers to different transport companies.

#### Water

During the reporting period, Kor Neretva used a total of  $10,876~{\rm m}^3$  of water from a public water supply system. We plan to continue reducing our consumption of public water

by a further 5% annually. However, we are already recording major savings as a result of water consumption awareness programs.

Electricity

#### **Emissions, Effluents and Waste**

Between May 1 and December 31, we disposed of a total of  $302~\text{m}^3$  of municipal waste, 0.3 t of non-hazardous waste (cardboard, paper), and  $275~\text{m}^3$  of bio-degradable waste. The cost of municipal waste disposal was HRK 88,572, while our biodegradable waste disposal costs amounted to HRK 30,000. Compared to 2012, when we spent HRK 143,375 on waste disposal (without separating biodegradable waste), our costs decreased by 17%.

Hazardous waste in the form of empty pesticide packaging (bags and bottles) is collected as part of the CROPCA ECO

model by C.I.A.K., periodically as necessary, and we aim to provide continuous training in the area of good agricultural practice to raise the awareness among our contractors of the necessity of using such approach with respect to this type of waste

Since its establishment, Kor Neretva recorded no incidents attributable to any spills of chemicals, oil or fuel or any other similar environmental pollution.

#### **Biodiversity**

In cooperation with the International Atomic Energy Agency and FAO, and with plenty of support from our company (both in financial terms and in terms of providing working premises), the Croatian Center for Agriculture, Food and Rural Affairs has implemented a program for sterilizing fruit fly males for the purpose of reducing the share of pesticides in mandarin production. The share of pesticides in fruits has thus been significantly reduced, which is very relevant to our mandarin export policy.

After the preparations, the project gained momentum in 2010 when this method was used by releasing sterile males across an area of 1,000 ha. In 2011, the project covered 1,250 ha, and we plan to use such biological inhibition method on an area of 4,000 ha in 2014 and across the entire Neretva Valley in the next few years.

This program directly and for the most part contributes to the protection of biodiversity and environmental protection, especially if the most environmentally acceptable pesticide is used. It takes four liters to cover 1 hectare. It is therefore easy to calculate that we used 16,000 to 18,000 liters less pesticide only last year. After using the male sterilization method, the Mediterranean fruit fly population decreased by over 90% on treated areas compared to untreated areas and we completely phased out the pesticides that were used to combat this pest before. This project is in line with the EU water protection policy because we also significantly reduced the pesticide content in wastewater and soil.

Since its establishment, Kor Neretva recorded no incidents attributable to any spills of chemicals, oil or fuel or any other similar environmental pollution.

#### Compliance

We have paid no fines for non-compliance with any environmental laws or regulations.

#### Planned Activities and main Objectives for 2014 and 2015

- In the next reporting period, we plan to increase the share of reusable packaging to directly reduce the amount of municipal waste resulting from disposable packaging.
- We will continue to include new products in our Global GAP and increase the number of our contractors by at least 5%.
- In addition to raising environmental awareness, we are also pursuing a cost-cutting policy to keep our business profitable.

### **Agriculture**

## Kikindski mlin a.d.

Kikindski mlin Kikinda has a long tradition as a wheat processing and raw material storing company. The company was transformed in 2005 and since that time Dijamant, Zrenjanin, and Frikom, Belgrade, have been its majority shareholders. Kikindski mlin has production plants in two locations: in Kikinda and in Odžaci (formerly Žitoprodukt Odžaci), and its core activities are storage, keeping and processing of wheat and laboratory testing. By storing wheat, Kikindski mlin meets the raw material quality requirements for the baking, brewing and confectionery industries. In January 2000, Žitoprodukt Odžaci became an organizational part of the Dijamant oil factory of Zrenjanin and a then division of Kikindski mlin in January 2009.

By processing wheat of quality preserved during the storage period, Kikindski mlin makes various flour milling products. Our raw materials storage and wheat processing activities are supported by good laboratory testing of raw materials and products and constant technological process monitoring and control. The mill in Kikinda, with a capacity of 135 t/day, uses electricity as energy and is among the leading mill facilities in the country in terms of equipment and production capacities. Excellently distributed equipment made by premium international and local manufacturers enables rational and stable mill processing of wheat and production of standard and special types of flour. A modern design of the mill's technological chart with harmoniously set sieving schemes allows for a large number of flour fractions that can be combined to make finished flour milling products with predefined technological characteristics. The mill in Odžaci has a capacity of 120 t/day and uses electricity as energy.

The raw material storage facilities include a silo and a warehouse. The silo (for storing wheat) in Kikinda has a capacity of 57,670 t, the silo in Novo Miloševo has a capacity of 8,000 t, and the capacity of the silo in Odžaci is 64,500 t. Our underground storage facilities are located in several places around Kikinda and have a combined storage capacity of 8,500 t. The silo facilities in Kikinda and Odžaci also include drying kilns with a capacity of 32 t/hr (calculated for corn). The drying kiln in Kikinda uses natural gas as energy, whereas the one in Odžaci uses oil.

The milling facility in Kikinda includes a pasta plant. The pasta product range includes short and nest-style pasta, the line has a capacity of 250 kg/hr for nest-style pasta and 300 kg/hr for short pasta, and the forms of energy used are electricity and natural gas for heating water used in the pasta drying process. The latest Italian technology that allows using traditional recipes for making pasta resulted in a final product of outstanding sensory characteristics, nutritionally valuable and dietetically suitable for a wide range of consumers. The combined production line enables us to efficiently meet all specific market demands for different forms of pasta.

The company has aligned its activities and adopted:

- QMS including the requirements of SRPS ISO 9001:2008,
- the principles of CODEX ALIMENTARIUS CAC / RCP 1-1969; Rev. 4 (2003),
- laboratory QM according to the requirements of SRPS ISO/ IEC 17025: 2006 for the declared scope of accreditation

For the above systems, the company holds a certificate issued by TÜV PROFICERT of Hessen (expiring on May 25, 2016) and an accreditation certificate issued by the Accreditation Authority of Serbia in Belgrade (expiring on February 29, 2016)

Our certified HACCP system is used at our Kikinda location and applies to the following products:

- standard and special types of wheat pasta,
- · pasta, and
- · animal feed,

from the moment we receive the raw material until we deliver our finished products.

We are in the process of implementing an environmental management system (EMS) according to SRPS ISO 14001:2005 and expect to be certified in May of 2014. The system is designed to be used across the company's location in Kikinda, including all its organizational parts, and applies to our production and marketing of wheat products and flour.



#### **Materials**

#### Materials used by weight or volume - kg

Type of material used	2012	2013
Raw material	50,718,440	47,132,440
Ancillary process materials	1,388	809
Packaging materials	380,634	280,616
Total	51,100,462	47,413,865

In 2013, Kikindski mlin was supplied with its basic raw material (wheat) at the usual rate. Most wheat was purchased during the harvesting period and the amounts purchased were consistent with the production needs. Kikindski mlin does not use any raw material or other input made of recycled material in its production process.

#### **Energy**

## Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)	LPG (GJ)
2012	3,147	7,040	102
2013	3,263	7,292	82
Total	6,409	14,332	184

The direct nonrenewable energy sources used by Kikindski mlin are natural gas for its pasta production purposes, euro diesel and D2 for its transport purposes, and LPG for loading, unloading and handling finished products using forklift trucks.

Our consumption of fuel for transport increased during the reporting period because in 2013 we mostly used our own vehicles for transport and only outsourced a small part of such services to transport companies. Our consumption of

natural gas for pasta production and heating premises and consumption of liquefied petroleum gas for loading and unloading goods decreased in 2013 compared to the preceding year as a result of reduced production and sales.

## Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	21,855
2013	19,544
Total	41,399

Electricity is used in Kikindski mlin to operate machines and lighting equipment. Our electricity consumption is consistent with the volume of work in Kikindski mlin. In 2013, electricity consumption fell compared to 2012 due to a reduction in total production.

#### Water

#### Total water withdrawal by source (m³)

Year	From internal wells	From a public water supply system	Total amount of all waters withdrawn
2012	1,879	2,019	3,898
2013	1,834	1,878	3,712
Total	3,713	3,897	7,610

Kikindski mlin is supplied with water from its own well and from the town water supply system. Chemically prepared water is used to prepare wheat for milling in our milling facilities, pasta production in the pasta production facility, and for

our laboratory testing processes. Water is also used for fire protection purposes and to maintain hygiene of our premises and employees. Our water consumption has been stable and is related to our production activities.

#### **Biodiversity**

The buildings and plants owned by Kikindski mlin are not in or adjacent to any protected natural areas or areas where Kikindski mlin's operations may endanger biodiversty. Accor-

ding to the general plan of the Municipality of Kikinda, the Kikindski mlin location is within the north operating zone intended for secondary and tertiary activities.

#### **Emissions, Effluents and Waste**

# Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Production plants	395	409
Fuel for transport	244	253
LPG	6	5
CO <sub>2</sub> equivalent	645	667

Direct greenhouse gas emissions in Kikindski mlin result from combustion of natural gas, diesel fuel and, to a minor extent, LPG.

# Other relevant indirect greenhouse gas emissions by weight

Year	t CO <sub>2</sub>
2012	0
2013	0
Total	0

No other relevant greenhouse gas emissions were found in Kikindski mlin that may have a significant environmental impact. In addition, Kikindski mlin does not emit any ozone depleting gases in its production process.

# Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	$NO_2$	CO
2012	0.00	0.70	0.07
2013	0.00	0.73	0.07
Total	0.00	1.43	0.14

Our direct and indirect greenhouse gas emissions measured in tons are insignificant because Kikindski mlin does not use any NOx or SOx emitting fuels in its production process, such as coal, crude oils, heating oil or heating wood, but only natural gas.

#### **Wastewater**

#### Total water discharge

Year	Wastewater (m³)
2012	1,728
2013	1,723
Total	2,451

Kikindski mlin does not discharge its process wastewater, but only sanitary and precipitation wastewater. During discharging, wastewater is treated in a longitudinal deposit tank and we do not measure the amounts of our wastewater or analyze it.

#### Waste

#### Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R	Ecology Action Kikinda	12,860	11,440
Hazardous waste	D	Ecology Action Kikinda	0	0
Total			12,860	11,440

The amount of non-hazardous waste decreased in 2013 compared to 2012 as a result of a reduction in total production. The amount of municipal waste was determined on the basis of the total area on which municipal waste is generated, more precisely  $6,570~\text{m}^2$  in Kikinda and  $2,141~\text{m}^2$  in Odžaci.

No significant spills of chemicals, fat or fuel were recorded during the reporting period in Kikindski mlin.

#### **Products and Services**

Kikindski mlin continuously works on optimizing its consumption of energy and natural resources and rational use of raw materials. We arranged for collection and recording of all types of waste by type and source and its disposal by licensed operators. We constantly monitor our environmental parameters (air and noise emissions). During the reporting period, we invested in vehicles using less fuel and featuring new generation engines that emit less harmful substances during combustion. We also invested in closing and airing of

our wheat acceptance point, whereby we significantly reduced the environmental impact of powder substances.

During 2013, we completed our preparations for the implementation of an environmental management system (EMS) according to SRPS ISO 14001:2005 and plan to have it certified in May of 2014. The system is designed to be used across the company's location in Kikinda, including all its organizational parts, and applies to our production and marketing of wheat products and flour.

#### Types and amounts of disposable packaging produced and placed on the market

Type of packaging (kg)	Disposed of by	2012	2013
Plastics	Ekostar Pak Beograd	46,997	42,545
Glass	Ekostar Pak Beograd	0	0
Metal	Ekostar Pak Beograd	0	338
Paper and cardboard	Ekostar Pak Beograd	279,016	237,733
Wood	Ekostar Pak Beograd	0	0
Miscellaneous	Ekostar Pak Beograd	0	0
Total		326,013	280,616

In 2013, Kikindski mlin cooperated with Ekostar Pak, a licensed packaging waste operator, and thus performed its packaging waste disposal obligations.

Kikindski mlin did not pay any administrative or court fines during this reporting period for failure to comply with any environmental law or regulation and no non-monetary sanctions were imposed on the company.

#### **Transport**

Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

Year	Fuel for transport	LPG		Total CO <sub>2</sub> emission
rear	GJ	GJ	Tons of CO <sub>2</sub> equivalent for fuel	Tons of CO <sub>2</sub> equivalent for LPG
2012	3,147	102	244	6
2013	3,263	82	253	5
Total	6,409	184	497	11

No significant environmental impact was found as a result of transporting raw materials, finished products or members of the workforce.

#### **Environmental Protection Investments**

#### Total environmental protection expenditures and investments by type (RSD)

	2012	2013
Waste disposal, emissions treatment and rehabilitation costs		
Waste treatment and disposal	1,230,379.99	1,272,967.32
Water charge	801.84	846.00
Sewerage charge	10,570.37	11,151.75
Packaging waste operator's fee	203,502.31	136,172.00
Total waste disposal, emissions treatment and rehabilitation costs	1,445,254.51	1,421,137.07
Environmental prevention and management costs (RSD)		
External mandatory environmental parameters monitoring services	574,000	527,000
Total environmental prevention and management costs	574,000	527,000
Total	2,019,254.51	1,948,137.07

#### Planned Activities and main Objectives for 2014 and 2015

- To produce and install bolts on the input branches of the airing ventilators in the engine room within Silo B (3 units).
- To produce and install a noise damper on the pneumatics ventilators in the mill (3 units) and the airing ventilators in the machine room within Silo B (1 unit).
- · To organize records of electricity, natural gas and water consumption including a data filtering option.
- To enter into contracts with licensed hazardous waste organizations.
- To improve our waste management by sorting at the source, namely:
  - paper and cardboard waste (paper and cardboard packaging, office and filing paper),
  - plastic waste (plastic foil and PET packaging),
  - plant waste,
  - · waste metal,
  - · waste wood,
  - · waste rubber,
  - · waste printing toner,
  - · electric and electronic waste,
  - waste oil,
  - · waste car batteries,
  - $\boldsymbol{\cdot}$  waste fluorescent tubes and mercury-containing bulbs,
  - oily filter material and wiping cloths.
- · To redesign our hazardous waste storage facility.
- · To increase the amount of waste recycled by separating waste paper, cardboard and plastic from mixed municipal waste.
- To duly have waste collected and establish a system to prevent spreading waste beyond the intended containers.
- · To post our Quality, Food Safety and Environmental Protection Policy on the company website.
- To inform our suppliers of services, raw materials and other materials, transporters of finished products and visitors to the company on how to behave.
- To complete all planned employee training programs in the area of environmental protection.

# Solana Pag d.d.

Solana Pag is the largest producer of sea salt in Croatia and its production is based on a tradition of a thousand years. Having joined The Agrokor Group in 1995, Solana Pag began to enlarge its product range, so it now produces the high-quality salt flower, dishwasher salt, bathing salt and seasoned salt in addition to small and large sea salt. The production technology used in Solana Pag maximizes the natural advantages of the surrounding area - clean environment, many sunny days and favorable wind, so Pag salt's purity makes it one of the best sea salts in Europe and the entire world. Salt produced in Solana Pag contains many minerals, most of which are necessary for human health, and undergoes iodination in our modern facilities. Solana Pag markets most of its products in Croatia, but is also present in the markets of our neighboring countries.

Solana Pag is a combined solar and thermal salt plant, which means its production process consists of two segments. During the first one, seawater is densified up to a certain concentration, and then salt is crystallized from densified seawater. The process of producing sea salt begins in shallow fenced pools where seawater evaporates exposed to the effects of solar energy and wind and is then brought into our vacuum-evaporating station. Most of such evaporation takes place outdoors, while the rest takes place within the plant as a result of the effect of thermal energy in the form of steam. Salt is then subjected to iodination, dried, sieved and packed or stored away for later use without iodination. Salt is controlled by an internal laboratory from the time it is produced until the finished product is made and is under constant supervision of government accredited laboratories and sanitary and veterinary inspectorates in the context of quality control and safety.

The salt plant is located on the island of Pag, 3 km south of the town of Pag, next to its seawater densification pools, and enjoys good transport connections. The salt plant does not have any adverse environmental impacts and the activities undertaken in Solana Pag do not have a harmful effect on the health of people living in nearby buildings.

Solana Pag provides additional safety and quality in its activities by implementing and enforcing its Quality, Environmental Protection and Product Safety Policy, thus ensuring that its production, from sea withdrawal to the finished product, and the environmental impact of its production are in compliance with the requirements of Codex Alimentarius and ISO 14001:2004.

- On May 12, 2005, we adopted our Production Hygiene and Sea Salt Enriching Policy. Solana Pag thus chose to implement a production hygiene and sea salt enriching system according to the requirements of Codex Alimentarius for the purpose of minimizing the risk of distributing unsafe products and complying with the relevant statutory requirements and customer demands.
- In early 2006, our HACCP system was certified according to Codex Alimentarius and is recertified every three years, including annual supervisory audits.
- Solana Pag has been certified according to the Kosher standard since 2009.
- In 2011, Solana Pag extended its policy. The management adopted the comprehensive, integrated Quality, Environmental Protection and Product Safety Policy, and its environmental management system was successfully certified later that year according to the requirements of the ISO 14001:2004 international standard.

#### **Materials**

#### Materials used by weight or volume - kg

Type of material used	2012.	2013.
Raw material	63.860.000	78.280.000
Ancillary process materials	1.719.571	7.978.865
Packaging materials	822.392	827.931
Total	66.401.963	87.086.796

As its initial raw material, Solana Pag uses seawater that undergoes a densification process. Our consumption of ancillary process materials in 2013 was much higher compared to earlier years because that was the time we started using wood

for heat and we needed more of it than heating oil to generate the same amount of energy.

As far as recycled input materials used by Solana Pag are concerned, during the reporting period we used transport boxes made of 100% recycled material and cardboard boxes for packaging our 1 kg products that contain unknown/varying shares of recycled materials. The percentage of packaging made of 100% recycled material (transport boxes) in total cardboard packaging was 8.89% in 2012 and 8.51% in 2013. The percentage of packaging partly made of recycled materials in the total amount of all types of packaging was 63.82% in 2012 and 67.37% in 2013. The percentage of all types of packaging containing recycled materials was 70.0% in 2012 and 73.63% in 2013.



#### **Energy**

# Direct energy consumption by primary energy source (non-renewable energy sources)

Year	Fuel (GJ)	Natural gas (GJ)	LPG (GJ)
2012	68,656	-	225
2013	4,844	-	192
Total	73,500	-	417

# Direct energy consumption by primary energy source (renewable energy sources)

Year	(GJ)
2012	0
2013	117,750
Total	117,750

The major decrease in fuel consumption (non-renewable energy sources) in 2013 compared to 2012 and the preceding reporting period (2010 and 2011) is attributable to the commissioning of a new heating boiler room powered by wood, i.e. wood chips that are classified as a renewable energy source. This is why our consumption of medium heating oil was 95 t in 2013, compared to 1,655 t in 2012. Our wood consumption increased compared to these figures, so our estimate for 2013 was 7,850 t. During 2012, when we only used crude oil for heating (compared to 2013 when we started using woodchips), our crude oil consumption was lower compared to the preceding reporting period as a result of smaller amounts of salt produced during that year. Our consumption of liquefied petroleum gas is similar as it was in the preceding reporting period.

# Indirect energy consumption by primary energy source (indirect energy supplied and used from non-renewable energy sources)

Year	Electricity (GJ)
2012	7,262
2013	8,802
Total	16,064

We optimized electricity consumption and improved our energy balance sheet thanks to fewer defects in the plant where we replace and repair outworn parts of the equipment every year, so our indirect consumption was somewhat lower in 2012 compared to 2011 and 2010. This decreasing trend in electricity consumption ended in 2013 when our new wood chip-powered boiler rooms started to operate, which resulted

in increased electricity consumption in 2013. This had been expected because we had built a completely new facility containing equipment that uses additional amounts of electricity in addition to the existing equipment.

To produce sea salt, a large amount water of must evaporate from seawater to obtain densified sea salt that enters the production plant and is made into salt as a finished product there. Most of this evaporation takes place in our salt pools where solar thermal energy and wind act to improve air exchange, which results in a loss of up to 90% of water from seawater. The remaining 10% of water in a salt and water suspension evaporates under the effect of thermal energy in the production plant within a crystallization system. As of 2013, we have been producing thermal energy by wood chip burning, as opposed to combustion of crude oil that we had used before.

Solana Pag is unable to include in its Report the indicator of energy savings resulting from process improvements achieved by rationalization and energy efficiency. In the context of energy, no changes occurred during the reporting period within the plant in terms of technological improvements, thermal insulation, etc. This is why no progress was made compared to earlier periods.

In 2012, we launched an initiative for creating an energy-efficient product, that is, a product based on renewable energy. In 2013, we implemented this initiative by building a wood chip powered boiler room, such wood chips being treated as forest biomass and a renewable energy source. However, this initiative will not result in reduced needs for energy. Our need for thermal energy is the same as it was in earlier periods, while our need for fuel increased in the sense that more biomass needs to be burned than crude oil to generate the same amount of required thermal energy.

We did not have any direct initiatives for reducing our direct energy consumption; however, with smaller investments and regular maintenance of the plant, we are able to reduce our electricity consumption. Our electricity consumption did not significantly decrease between 2010 and 2012. The production volume depends on the production year, i.e. on how much salt was produced, and on salt packaging needs during a year. However, if we take into account our electricity consumption (kWh) per kilogram of produced salt, we can see that this coefficient decreased between 2010 and 2012. By making various small investments, Solana tried to minimize the environmental impact of its electricity consumption. For this purpose, we installed light sensors for lighting management; we reduced the number of lighting fixtures in the production plant and the packing facility; and installed a new compressed air pipeline, which indirectly reduced our electricity consumption.

#### Water

#### Total water withdrawal by source (m³)

Year	Sea	Cooling sea	From a public water supply system	Total amount of all waters withdrawn
2012	62,000	1,100,000	15,765	1,177,765
2013	76,000	1,440,000	21,991	1,537,991
Total	138,000	2,540,000	37,756	2,715,756

Solana Pag uses water from the public supply system for its process and sanitary purposes. The quality of water supplied is closely related to its consumption, so we monitor both items on a daily basis. Our consumption of water from the public supply system was higher in 2013 than it was in 2012 as a result of the operation of our new boiler room that initially used more water, but our consumption of water from the public supply system was cumulatively much lower compared

to the preceding reporting period as a result of our daily monitoring of water quality that we started practicing in 2011. Seawater is used as cooling water for process purposes. In 2012, we processed 62,000 m<sup>3</sup> of brine to produce 14,000 t of salt, compared to 2013 when we processed 76,000 m<sup>3</sup> of brine and produced 15,700 t of salt. Solana Pag did not use recycled water during the reporting period.

#### **Biodiversity**

Solana Pag is located 3 km south of the town of Pag on an area of 225 hectares. The salt plant includes pools in Dinjiška covering an area of 33 hectares, 258 hectares combined with our pools south of Pag. The site in Dinjiška is connected by a saltwater pipeline with the site/salt plant in Pag. Solana Pag is the only salt producer on the island of Pag that uses seawater crystallization to produce salt. Solana Pag is authorized to exploit mineral raw materials in the area described. The entire area of Solana Pag and the Dinjiška Salt Plant is within the Natura 2000 ecological network of the Republic of Croatia, in the segment named NW Dalmatia and Pag and coded HR1000023. Both salt plants are located within a conservation area important for protection of various species and types of habitat, as well as birds.

The business activities pursued by Solana Pag are production and enriching of sea salt. Seawater used for salt densification and production is poured across our site from Pag Bay. Our business location did not change since the preceding reporting period.

The first written records of salt plants in Solana's present location date back to the late 8th and early 9th century, but they are believed to have existed here much earlier. The pools and channels and embankments around the pool are part of the ecological network. These are special and very sensitive ecosystems containing endemic species of fish and highly endangered bird species. The Solana Pag habitat contains the largest nesting site for plover (Charadrius alexandrines), a highly endangered bird included in the Red List of Endangered Bird Species. The entire plover population found in Croatia depends on salt plants, more specifically those salt plants that produce salt, i.e. that are in operation. Nests and young birds have been found in Solana Pag, so the most urgent measure for the survival of the remaining, most important two salt plants among the proposed measures for the preservation of registered endangered species and guidelines for sustainable management of habitats of special relevance to endangered species is to ensure that these salt plants survive. Because of these special characteristics, Solana Pag has been included in Natura 2000. The figures did not change compared to the preceding reporting period.

#### **Emissions, Effluents and Waste**

# Total direct and indirect greenhouse gas emissions by weight

Total air emissions (t CO <sub>2</sub> eq.)	2012	2013
Production plants	5,329	6,596
Fuel for transport	12.27	46.34
LPG	10.7	9.13
CO <sub>2</sub> equivalent	5,352	6,652

The methodology used to calculate our total direct and indirect greenhouse gas emissions is based on the emission factor. Our production plant emits  $CO_2$  during combustion of fuel for generating thermal energy, namely medium heating oil used by our old boiler room and wood chips used by our new boiler room. In 2013, we recorded an increase in  $CO_2$  emissions from our production plant as a result of increased consumption of fuel (wood) compared to 2012 and 2011. In

2012, our  $CO_2$  emissions resulting form combustion of fuel to generate heat decreased compared to the preceding reporting period. As the amount of fuel used and the resulting  $CO_2$  emissions are in close correlation to the duration of each production period and the relevant amount of salt produced, this decrease in  $CO_2$  emissions recorded during the reporting period is also a result of smaller amounts of salt produced.

For salt handling purposes during packaging, Solana Pag uses a loading machine that uses fuel for transport together with a truck. As our truck for transporting wood was purchased in the reporting year 2013, the increase in our  $CO_2$  emissions from transport fuel is obvious.

In late 2012, Solana Pag started to build its new boiler room that uses wood chip as a heating medium to generate process steam. We aimed to reduce one of the environmental management system (EMS) aspects (pollutant emissions from stationary sources) to a minimum, as wood, on the other hand, is a renewable energy source. In terms of functionality, boilers powered by wood chip are no worse than oil-based heating systems and are much more fuel efficient. We are therefore building this new steam generating plant powered by wood chips for the purpose of satisfying our process needs for thermal energy to be supplied by a plant using cheaper and environmentally more acceptable fuel. The energy utilization of wood chips may be considered  $CO_2$  neutral, which is their primary environmental advantage compared to fossil fuels. Namely, present and newly planted trees need oxygen during their growth and development, so the amount of CO<sub>2</sub> resulting from biomass burning is 'neutralized' compared to fossil fuels. It is also important to mention that biomass is delivered in the form of logs not previously contaminated by processing or treatment (e.g. by paint). Logs supplied by Hrvatske šume are cut in accordance with the sustainable forest management principles, i.e. such logs are not obtained from fire-devastated areas, from hollow, unhealthy or old trees, or from trees that needed to be removed for rehabilitation, biological regeneration or forest thinning.

Solana Pag does not use any ozone depleting substances in its production processes.

# Total direct and indirect greenhouse gas emissions by weight (in tons)

Year	SO <sub>2</sub>	$NO_2$	СО
2012	53.29	9.65	0.30
2013	1.57	16.83	0.24
Total	54.86	26.48	0.54

We reduced pollutant emissions from stationary sources after commissioning our wood chip-powered boiler room. This was confirmed by measuring the emissions for our crude oil-powered boiler and our biomass-powered boiler. Our emissions of other gases and particulate matter resulting from wood chip burning were lower compared to other fossil fuels. The greatest progress in reducing our air emissions is reflected in the amount of  $SO_2$  emissions recorded in 2013. If we compare this figure to the mean  $SO_2$  emissions recorded in 2010 and 2011, our  $SO_2$  emissions were approximately 35 times lower than they were in the preceding reporting period. On the other hand, if we compare our total  $SO_2$  emissions recorded in 2012 and 2013 to the preceding reporting period, we will reach the conclusion that our  $SO_2$  emissions decreased by 50% in only two years.

#### Wastewater

#### Total water discharge

Year	Wastewater (m³)
2012	1,167,669
2013	1,528,891
Total	2,695,560

Mixed wastewater discharged from Solana Pag's location into the public sewerage system includes process, cooling, sanitary and precipitation water. The entire amount of densified seawater is used to crystallize salt, the evaporated part is condensed and such condensate is discharged into the sea, while the rest is mother liquor that is also discharged into the sea.

Solana Pag holds a water license issued on March 20, 2009 by Hrvatske vode, CLASS: UP/I°-325-04/09-04/49, FILE NO.: 374-24-4-09-3/LP, which allows for wastewater to be discharged into the sea as follows: sanitary water (treated in a biological treatment plant), process water and cooling water. According to the water license, sanitary wastewater is sampled twice a year and process and cooling wastewater is sampled four times a year. Wastewater is sampled and its quality is tested by the Zadar Public Health Institute.

The results of wastewater analyses are in compliance with all requirements of the water license with respect to discharging wastewater into a public sewerage system in accordance with the applicable regulations of the Republic of Croatia. In 2012 and 2013, the results of the tested parameters were within the allowed limits. Our total wastewater discharge recorded during the two years was similar as it was during the preceding reporting period.

Waste

#### Total weight of waste by type and disposal method (kg)

Type of waste	Treatment	Collected by	2012	2013
Non-hazardous waste	R	Unijapapir, CeZaR, Arburoža	17,600	60,286
Hazardous waste	D	Ciak, Ind Eko, Flora VTC	12,746	13,130
Total			30,346	73,416

Non-hazardous waste results from our production processes as follows: 15 01 01 and 15 01 02 from the packaging process and office activities, and 10 01 01 from the combustion process in the wood chip-powered boiler room. The generation of this type of waste is proportional to increased or decreased production and packaging needs. The increased amount of non-hazardous waste recorded in 2013 was a result of ashes resulting from wood chip burning. Ash is a new type of waste in Solana Pag. It is disposed of in a fully environmental manner, which means it is not discarded but used in wastewater treatment by a company on the island. In 2013, we generated somewhat more metal waste as a result of removing our crude oil tank.

Hazardous waste is generated during regular annual maintenance of machinery and as a result of office and laboratory activities. 12 t of waste coded 16 07 08\* was generated on a one-time basis in 2012. This waste was a mixture of water,

cleaning products and crude oil resulting from cleaning a crude oil tank for the purpose of repairing the tank material on the outer wall. This cleaning was performed by a licensed company and the waste was properly disposed of. 11.86 t of waste coded 13 07 03\* and 16 07 09\* was generated in 2013 on a one-time basis while removing an oil tank. Waste is properly disposed in designated containers indicating the respective waste codes and waste names. In 2013, we removed a large oil tank that had represented a potential risk because the material it was made of was old. The contents of the tank were properly disposed of and its materials collected by a licensed operator. We replaced it by a new, smaller tank that does not represent such an environmental risk as the old one did.

Solana Pag did not record any spills during the reporting period

#### **Products and Services**

In 2012, we started to build a new boiler room using wood chip to generate thermal energy. This project allowed us to improve our energy efficiency in production and to replace crude oil by a cleaner form of energy. We also reduced our pollutant emissions. The quality of our wastewater is within the limits required by the water license, confirmed by the results of measuring conducted by the Zadar Public Health Institute. Although the initiative for monitoring our water

consumption was launched before this reporting period, it proved to be a very efficient step because we are able to respond in a timely manner in case of any damage.

Solana Pag did not use any end-of-life recyclable products. Packaging reuse is practiced by using reusable pallets, some of which are reclaimed and used for packaging new products.

#### **Compliance**

No significant fines or non-monetary sanctions were imposed on Solana Pag during this reporting period for non-compliance with any environmental laws or regulations.

#### **Transport**

Solana Pag does not use a fleet for transporting materials and products or a bus for transporting its workforce members to work. Waste substances are collected and transported to be disposed of beyond the island in a controlled manner.

#### **Environmental Protection Investments**

#### Total environmental protection expenditures and investments by type (HRK)

	2012	2013
Fume emissions measuring	2,875	5,000
Wastewater analyses	2,840	3,000
ISO 14001 supervisory audits	14,421	13,044
Employee training	-	6,500
Waste collection and disposal	75,168	11,100
Boiler room construction	-	19,000,000
Total	95,304	19,038,644

As regards its objectives for 2012 and 2013, Solana Pag completed its investment in the construction of a new boiler room and development of a low-carbon industry that allowed us to use energy efficiency measures and renewable energy sources, reduce greenhouse gas emissions resulting from combustion and have a positive impact on the environment and air quality, thus mitigating the risk to human health thanks to lower air pollution levels. Thanks to this project, we removed a large crude oil tank that represented a risk of potential sudden crude oil spills. Certified in 2011, our ISO 14001 system successfully underwent two supervisory audits and is scheduled to be recertified in 2014. By continuously monitoring

our energy consumption, we reduced our energy consumption and thus also reduced our environment impacts. Some forms of energy directly depend on our annual production volumes, so they cannot be visibly manipulated, but can be maintained on a constant predefined consumption level to avoid any major variations in the course of a year. By training the employees of Solana Pag in proper waste sorting and energy use, we raised their awareness of the importance of sorting and disposing of each type of waste. Each department properly disposes of its specific types of waste and uses raw materials and energy more rationally for its activities.

#### Planned Activities and main Objectives for 2014 and 2015

Solana Pag is preparing to implement projects and investments in the next reporting period that are absolutely necessary to improve the quality of Solana Pag's products. These investments would provide for a higher quality of salt to meet the demands (particular humidity content and particular granulation, i.e. grain size) of most international markets Solana Pag is attempting to penetrate, and would ultimately result in improved business and more secure production. As regards the salt production and processing segment, we need to replace our production equipment (salt drying facility and mill) to maintain the present production and business capacities. In 2014, recertification audits will be conducted for both systems that Solana Pag has certified. We plan to continue the process of obtaining a national geographic origin mark for Pag sea salt and to start a process of having this mark certified on the EU level.

# Implementation of the United Nations Global Compact in the Republic of Croatia

(Global Compact - Communication on Progress)

The Global Compact is a 2000 international United Nations initiative to bring together businesses with UN agencies, governments and civil society in supporting fundamental values in the areas of human rights, labor, the environment and anti-corruption. The Global Compact is based on ten fundamental principles arising from or based on the Universal Declaration of Human Rights, the International Labor Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention against Corruption of 2000.

The signatories to the Global Compact expressed their willingness to conduct their business in a socially responsible manner and are expected to adopt, promote and apply in their respective spheres of influence these fundamental values i.e. the ten principles divided into four basic groups.

The Agrokor Group is a complex business group operating in several countries within and outside the region and includes companies engaged in several sectors: primary agricultural production, processing, food and beverage production, retail trade and wholesale trade. Our third sustainability report includes our activities undertaken in 2012 and 2013. Our activities, as they relate to the fundamental principles of the Global Compact, are detailed in the Report, the relevant indicators are provided for each of the principles below, and a list of all indicators included in the Report is provided in Appendix 5.

#### **Human rights**

**Principle 1** Businesses should support and respect the protection of internationally proclaimed human rights; and

Principle 2 Make sure that they are not complicit in human rights abuses.

GRI 3 indicator: LA4, LA8, LA9, LA13, LA14, HR5, SO5

#### Labor standards

Principle 4 the elimination of all forms of forced and compulsory labor;

Principle 5 the effective abolition of child labor; and

**Principle 6** the elimination of discrimination in employment and occupation.

GRI 3 indicator: LA2, LA4, LA13, LA14, HR5, SO5, EC7

#### **Environment**

Principle 7 Business should support a precautionary approach to environmental challenges;

Principle 8 undertake initiatives to promote environmental responsibility; and

**Principle 9** encourage the development and diffusion of environmentally friendly technologies. GRI 3 indicator: EC1, EC2, EC3, EC4, EC8, EC11, EC12, EC16, EC17, EC19, EC20, EC21, EC22, EC23, EC26, EC27, EC28, EC29, EC230

#### **Anti-corruption**

**Principle 10** Businesses should work against corruption in all its forms, including extortion and bribery.

GRI 3 indicator: SO5

# The shareholding structure for all companies within the Agrokor Group

## **Business Group Food**

Agrokor - Zagreb d.o.o.	100.00%	Ledo kft.	55.30%
Agrolaguna d.d.	85.22%	Ledo d.o.o. Podgorica	55.30%
Belje d.d.	67.92%	Mladina d.d.	48.98%
Dijamant a.d.	73.08%	Nova Sloga d.o.o.	55.30%
Dijamant - Agrar a.d.	70.03%	PIK Vinkovci d.d.	70.87%
Frikom d.o.o.	55.30%	PIK Vrbovec d.d.	99.99%
Fonyodi kft.	80.44%	Sarajevski kiseljak d.d.	80.98%
Irida d.o.o.	55.30%	Sojara d.o.o.	51.84%
Jamnica d.d.	80.44%	Solana Pag d.d.	96.68%
Kikindski mlin a.d.	66.07%	Vupik d.d.	55.76%
Ledo d.d.	55.30%	Zvijezda d.d.	51.84%
Ledo d.o.o. Čitluk	55.30%		

## **Business Group Retail**

Angropromet a.d.	96.86%	Libertus usluge d.o.o.	100.00%
Euroviba d.o.o.	91.50%	Multiplus card d.o.o.	72.65%
Idea d.o.o.	96.86%	PIK BH d.o.o. Laktaši	99.99%
Jamnica d.o.o. Beograd	80.44%	Roto dinamic d.o.o.	100.00%
Jamnica d.o.o. Maribor	80.44%	Roto ulaganja d.o.o.	100.00%
Konzum d.d.	96.86%	Super Kartica d.o.o.	96.86%
Konzum d.o.o. Sarajevo	96.86%	Tisak d.d.	67.35%
Kor Neretva d.o.o.	96.86%	TPDC Sarajevo d.d.	51.00%
Krka d.o.o.	79.82%	Zvijezda d.o.o. Ljubljana	51.84%
Ledo d.o.o. Kosovo	55.30%	Zvijezda d.o.o. Sarajevo	51.84%
Ledo d.o.o. Ljubljana	55.30%	Žitnjak d.d.	86.62%

#### Other businesses

Acro d.o.o.	100.00%
Agrokor AG	100.00%
Agrokor - Energija d.o.o.	100.00%
Agrokor kft.	100.00%
Agrokor - trgovina d.d.	100.00%
eLog d.o.o.	96.86%
L.G. Moslavina d.o.o.	100.00%
M-profil SPV d.o.o.	100.00%
mStart d.o.o.	100.00%

# List of major unions in The Agrokor Group

#### Croatia

- PPDIV
- · Sindikat trgovine Hrvatske
- · Hrvatski sindikat trgovine
- Sindikat Istre i Kvarnera
- · Novi sindikat Hrvatske
- Hrvatska udruga sindikata HUS
- · HUS radnika Belja
- · HUS radnika Belja-Podružnica Vupik;
- HUS radnika Belja-Podružnica Konzum,

- HUS Sindikat radnika PIK Vrbovec
- HUS Nezavisni sindikat Demokratska zaštitna zajednica posloprimaca-Sindikalna podružnica PIK Vinkovci
- Nezavisni sindikat Ledo
- · Sindikat novine
- · Sindikat grafičke i nakladničke djelatnosti Hrvatske
- · Sindikat prometa i veza
- · Slavonsko-Baranjski sindikat
- · Sindikat hrvatskog vozača

#### Serbia

- Samostalni sindikat Sindikalna organizacija Dijamant a.d.
- Slobodni sindikat Frikom a.d.,član Unije sindikata, Sindikat nezavisnost Frikom a.d.,član granskog sindikata prehrane,ugostiteljstva i turizma, Samostalni sindikat Frikom a.d.,član Saveza samostalnih sindikata Srbije,
- Savez samostalnih sindikata Srbije- Sindikalna organizacija Kikindski mlin
- Samostalni sindikat trgovine Srbije Idea
- · Unija slobodnih sindikata Idea
- · Asocijacija slobodnih i nezavisnih sindikata Idea
- Sindikat Nova Sloga a.d.
- Sindikalna organizacija samostalnog sindikata Dijamant Agrar

#### Bosnia - Herzegovina

- PPDIVUT BiH
- Sindikat trgovine Sindikalna podružnica Konzum
- PPDIVUT- Sindikalna organizacija Sarajevski Kiseljak
- Sindikat radnika trgovine BiH
- Sindikat trgovine, ugostiteljstva,turizma i uslužnih djelatnosti Republiek Srpske

# **List of Certified International Standards**

Agrolaguna d.d.         HACCP; ISO 9001:2008; ISO 14001:2004; Koscher           Belje d.d.         HACCP; ISO 9001:2008; ISO 14001:2004; OHSAS 18001:2007; GLOBAL G.A.P.; IFS; Koscher; Halal           Dijamant a.d.         HACCP; ISO 9001:2008; ISO 14001:2004; FSSC 22000; IFS; Halal; GMP+           Fonyodi kft         ISO 9001:2008           Frikom a.d.         HACCP; ISO 9001:2008; ISO 14001:2004; ISO 22000:2005; OHSAS 18001:2007; GLOBAL G.A.P.           Idea a.d.         ISO 14001:2004           Irida d.o.o.         HACCP; ISO 9001:2008; ISO 14001:2004; Koscher           Jamnica d.d.         HACCP; ISO 9001:2008; ISO 14001:2004; Koscher; NSF; NATO-US Army           Kikindski mlin a.d.         HACCP; ISO 9001:2008; ISO 14001:2007; ISO 22000:2005; ISO/TEC 27001:2005           Konzum d.d.         HACCP; ISO 9001:2004; OHSAS 18001:2007; ISO 22000:2005; ISO/TEC 27001:2005           Konzum BlH d.o.o.         ISO 14001:2004           Ledo BlH d.o.o.         HACCP; ISO 9001:2008; ISO 14001:2004; Halal           Ledo d.d.         HACCP; ISO 9001:2008; ISO 14001:2004; GLOBAL G.A.P.; Koscher           Nova Sloga a.d.         HACCP; ISO 9001:2008; ISO 14001:2004; GLOBAL G.A.P.; Koscher           PIK Vrinkovci d.d.         ISO 9001:2008; ISO 14001:2004; OHSAS 18001:2007; IFS; Koscher; Halal           Sarajevski kiseljak d.d.         ISO 14001:2004; ISO 22000:2005           Sojara d.d.         ISO 9001:2008; ISO 14001:2004; Koscher </th <th>Company</th> <th>Certificate</th>	Company	Certificate
Dijamant a.d.         HACCP; ISO 9001:2008; ISO 14001:2004; FSSC 22000; IFS; Halal; GMP+           Fonyodi kft         ISO 9001:2008           Frikom a.d.         HACCP; ISO 9001:2008; ISO 14001:2004; ISO 22000:2005; OHSAS 18001:2007; GLOBAL G.A.P.           Idea a.d.         ISO 14001:2004           Irida d.o.o.         HACCP; ISO 9001:2008; ISO 14001:2004; Koscher           Jamnica d.d.         HACCP; ISO 9001:2008; ISO 14001:2004; Koscher; NSF; NATO-US Army           Kikindski mlin a.d.         HACCP; ISO 9001:2008; ISO/IEC 17025           Konzum d.d.         HACCP; ISO 14001:2004; OHSAS 18001:2007; ISO 22000:2005; ISO/TEC 27001:2005           Konzum BiH d.o.o.         ISO 14001:2004           Ledo BiH d.o.o.         HACCP; ISO 9001:2008; ISO 14001:2004; Halal           Ledo d.d.         HACCP; ISO 9001:2008; ISO 14001:2004; IFS; BRC; Koscher           Nova Sloga a.d.         HACCP           PIK Vinkovci d.d.         HACCP; ISO 9001:2008; ISO 14001:2004; GLOBAL G.A.P.; Koscher           PIK Vrbovec d.d.         ISO 9001:2008; ISO 14001:2004; OHSAS 18001:2007; IFS; Koscher; Halal           Sarajevski kiseljak d.d.         ISO 14001:2004; ISO 22000:2005	Agrolaguna d.d.	HACCP; ISO 9001:2008; ISO 14001:2004; Koscher
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Ledo d.d.       HACCP; ISO 9001:2008; ISO 14001:2004; IFS; BRC; Koscher         Nova Sloga a.d.       HACCP         PIK Vinkovci d.d.       HACCP; ISO 9001:2008; ISO 14001:2004; GLOBAL G.A.P.; Koscher         PIK Vrbovec d.d.       ISO 9001:2008; ISO 14001:2004; OHSAS 18001:2007; IFS; Koscher; Halal         Sarajevski kiseljak d.d.       ISO 14001:2004; ISO 22000:2005	Konzum BIH d.o.o.	ISO 14001:2004
Nova Sloga a.d.         HACCP           PIK Vinkovci d.d.         HACCP; ISO 9001:2008; ISO 14001:2004; GLOBAL G.A.P.; Koscher           PIK Vrbovec d.d.         ISO 9001:2008; ISO 14001:2004; OHSAS 18001:2007; IFS; Koscher; Halal           Sarajevski kiseljak d.d.         ISO 14001:2004; ISO 22000:2005	Ledo BIH d.o.o.	HACCP; ISO 9001:2008; ISO 14001:2004; Halal
PIK Vinkovci d.d.       HACCP; ISO 9001:2008; ISO 14001:2004; GLOBAL G.A.P.; Koscher         PIK Vrbovec d.d.       ISO 9001:2008; ISO 14001:2004; OHSAS 18001:2007; IFS; Koscher; Halal         Sarajevski kiseljak d.d.       ISO 14001:2004; ISO 22000:2005	Ledo d.d.	HACCP; ISO 9001:2008; ISO 14001:2004; IFS; BRC; Koscher
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	PIK Vrbovec d.d.	ISO 9001:2008; ISO 14001:2004; OHSAS 18001:2007; IFS; Koscher; Halal
Sojara d.d. ISO 9001:2008; ISO 14001:2004; Koscher	Sarajevski kiseljak d.d.	ISO 14001:2004; ISO 22000:2005
	Sojara d.d.	ISO 9001:2008; ISO 14001:2004; Koscher
Solana d.d. HACCP; ISO 14001:2004; Koscher	Solana d.d.	HACCP; ISO 14001:2004; Koscher
Vupik d.d. ISO 14001:2004; GLOBAL G.A.P.	Vupik d.d.	ISO 14001:2004; GLOBAL G.A.P.
Zvijezda d.d. HACCP; ISO 9001:2008; ISO 14001:2004; ISO/TEC 27001:2005; Koscher	Zvijezda d.d.	HACCP; ISO 9001:2008; ISO 14001:2004; ISO/TEC 27001:2005; Koscher

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#### **GRI Indicators**

#### **PROFILE**

#### 1. Strategy and Analysis

1.1. Statement from the most senior decision-maker of the organization about the relevance of sustainability to the organization and its strategy

#### 2. Organizational Profile

- 2.1. Name of the organization.
- 2.2. Primary brands, products, and/or services.
- 2.3. Operational structure of the organization.
- 2.4. Location of organization's headquarters.
- 2.5. Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.
- 2.6. Nature of ownership and legal form.
- 2.7. Markets served.
- 2.8. Scale of the reporting organization.
- 2.10. Awards received in the reporting period

#### 3. Report Parameters

#### **Report Profile**

- 3.1. Reporting period
- 3.2. Date of most recent previous report
- 3.3. Reporting cycle
- 3.4. Contact point for questions regarding the report or its contents

#### **Report Scope and Boundary**

- 3.5. Process for defining report content
- 3.6. Report boundaries

#### **GRI Content Index**

3.12. Table identifying the location of the Standard Disclosures in the report

#### Assurance

3.13. Table identifying the location of the Standard Disclosures in the report

#### 4. Assurance

#### Policy and current practice with regard to seeking external assurance for the report

- 4.1. Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.
- 4.2. Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).
- 4.3. For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or nonexecutive members.
- $4.4.\ Mechanisms\ for\ shareholders\ and\ employees\ to\ provide\ recommendations\ or\ direction\ to\ the\ highest\ governance\ body.$
- 4.8. Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation

#### **Commitments to External Initiatives**

- 4.12. Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.
- 4.13. Memberships in associations (such as industry associations) and/or national/international advocacy organizations

#### Stakeholder Engagement

- 4.14. List of stakeholder groups engaged by the organization.
- 4.15. Basis for identification and selection of stakeholders with whom to engage

#### **ECONOMIC PERFORMANCE INDICATORS**

- **EC1** Economic value generated and distributed,
- EC2 Financial implications and other risks and opportunities for the organization's activities due to climate change.
- **EC3** Coverage of the organization's defined benefit plan obligations.
- **EC4** financial assistance received from public sources
- EC6 Policy, practices and proportion of spending on locally based suppliers at locations of significant operation
- **EC7** Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation

#### **SOCIAL PERFORMANCE INDICATORS**

#### **Labor Practices and Decent Work**

- **LA1** Total workforce by employment type, employment contract, and region
- **LA2** Total number and rate of employee turnover by age group, gender, and region.
- **LA3** Benefits provided to full-time employees that are not provided to temporary or parttime employees, by significant locations of operation

#### **Labor / Management Relations**

- **LA4** Percentage of employees covered by collective bargaining agreements.
- **LA7** Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender.
- **LA8** Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.
- **LA9** Health and safety topics covered in formal agreements with trade unions

#### **Training And Education**

- **LA10** Average hours of training per year per employee by employee category
- **LA11** Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings
- LA12 Percentage of employees receiving regular performance and career development reviews, by gender

#### **Diversity and Equal Opportunity**

- **LA13** Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity
- **LA14** Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation

#### **HUMAN RIGHTS PERFORMANCE INDICATORS**

HR4 - Total number of incidents of discrimination and corrective actions taken

#### **PUBLIC POLICY**

- **SO5** Public policy positions and participation in public policy development and lobbying
- SO7 Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes
- **SO8** Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations

#### **FOOD PROCESSING SECTOR**

- FP3 Percentage of working time lost due to industrial disputes, strikes and/or lock-outs, bycountry
- **FP4** Nature, scope and effectiveness of any programs and practices (in-kind contributions, volunteer initiatives, knowledge transfer, partnerships and product development) that promote access to healthy lifestyles; the prevention of chronic disease; access to healthy, nutritious and affordable food; and improved welfare for communities in need.
- **FP5** Percentage of production volume manufactured in sites certified by an independent third party according to internationally recognized food safety management system standards
- **FP6** Percentage of total sales volume of consumer products, by product category, that are lowered in saturated fat, trans fats, sodium and added sugars.
- **FP7** Percentage of total sales volume of consumer products, by product category, that contain increased nutritious ingredients like fiber, vitamins, minerals, phytochemicals or functional food additives.
- **FP8** Policies and practices on communication to consumers about ingredients and nutritional information beyond legal requirements.

#### PRODUCT RESPONSIBILITY PERFORMANCE INDICATORS

#### **Customer Health and Safety**

- PR1 Life cycle stages in which health and safety impacts of products and services are assessed
- **PR2** Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.

#### **Product and Service Labeling**

- **PR3** Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements
- **PR4** Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.
- **PR5** Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.

#### **Marketing Communications**

- **PR6** Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship
- **PR7** Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.

#### **Customer Privacy**

PR8 - Total number of substantiated complaints regarding breaches of customer privacy and losses of customer dana

#### Compliance

**PR9** – Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and services

#### **ENVIRONMENTAL PERFORMANCE INDICATORS**

#### **Materials**

**EN1** – Materials used by weight or volume.

**EN2** – Percentage of materials used that are recycled input materials.

#### **Energy**

EN3 – direct energy consumption by primary energy source

**EN4** – direct energy consumption by primary energy source

#### Water

**EN8** – total water withdrawal by source

#### **Biodiversity**

**EN11** – Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.

**EN12** – Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.

#### **Emissions, Effluents and Waste**

**EN16** - Total direct and indirect greenhouse gas emissions by weight.

**EN17** - Other relevant indirect greenhouse gas emissions by weight.

**EN19** - Emissions of ozone-depleting substances by weight.

**EN20** - NO, SO, and other significant air emissions by type and weight.

**EN21** - Total water discharge by quality and destination.

**EN22** – Total weight of waste by type and disposal method.

**EN23** - Total number and volume of significant spills.

#### **Products and Services**

EN26 - Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.

**EN27** - Percentage of products sold and their packaging materials that are reclaimed by category.

#### Compliance

**EN28** – Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.

#### Transport

**EN29** – Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

#### Overall

EN30 - Total environmental protection expenditures and investments by type

© 2014. Agrokor Publisher: Agrokor d.d. Design: Agrokor d.d.

Photography: Mara Bratoš, Ranko Šuvar / CROPIX, arhiva Agrokor d.d.

Translation: Abis d.o.o. Zagreb Prepress: Kaligraf d.o.o., Zagreb

Print: Kolor klinika d.o.o.