

TRUE COLOURS

SUSTAINABILITY REPORT 2009

CONTENTS

3	A&R Carton at a glance.....
6	Letter from the CEO.....
8	Governance and Code of Conduct.....
9	Reporting and effort program.....
10	Stakeholder engagement.....
11	A transparent industry.....
12	Environmental impact.....
14	Material flow in our value chain.....
15	Sustainable forestry and certification.....
16	Case: Energy recovery of waste.....
17	Case: Carbon footprints and carton packaging.....
18	Case: Improving baby food packaging.....
19	Case: M+Q Way, waste management project.....
20	Case: Environmental room.....
21	Consumer health and safety.....
22	RASFF – on alert to keep consumers safe.....
23	Supplier case and low migration inks.....
24	Case: Cleaning out unnecessary chemicals.....
25	Responsible social citizenship.....
26	A&R Carton as a workplace.....
27	Case: E-learning.....
28	GRI index.....

A&R Carton AB, company registration number 556050-0554, is a Swedish company and parent company of the A&R Carton Group. The head office is in Malmö, Sweden.

This is not the official annual report for A&R Carton AB 2009. This report is focused on sustainability efforts within A&R Carton and mainly based on the guidelines issued by the Global Reporting Initiative, GRI. The report has not been audited.

All figures are in EUR unless otherwise stated. **Please visit www.ar-carton.com for more info.**

Contact for the report:

Sammy Hallgren, HS & E Group Manager

+46 46 18 32 33

sammy.hallgren@ar-carton.com

Johan Mårtensson, Group Marketing Manager

Mobile + 46 766 456 535

johan.martensson@ar-carton.com



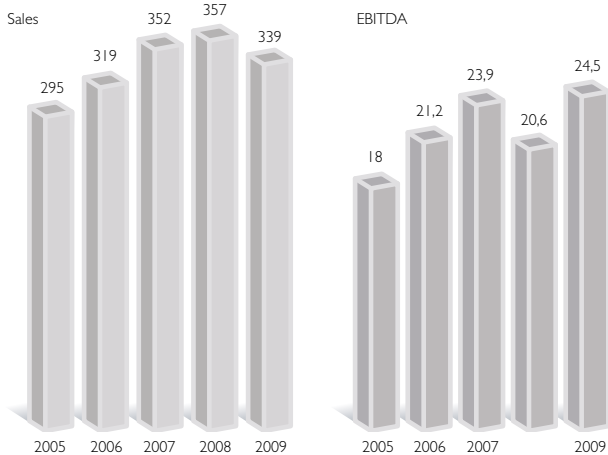
Are your packaging solutions sustainable?

A&R CARTON AT A GLANCE

A&R Carton specialises in paperboard packaging solutions, combining an innovative approach with vast experience in traditional consumer packaging. The company was founded in 2000 through the merger of Åkerlund & Rausing's carton business and FCP. Both companies had traditions in the folding carton industry dating back to the early 1990s.

A&R Carton is owned by Ahlström Capital (61%) – a private equity investment company founded in 2001 with industrial heritage from 1853 and CapMan (32%) – a leading Nordic private equity company with the remainder being owned by the management.

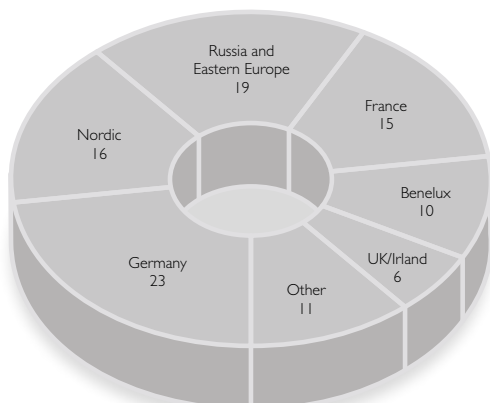
Sales and EBITDA 2005–2009 (MEUR)



The market contracted in 2009

Total sales amounted to EUR 339m in 2009 (357). Sales decreased but the financial year-over-year result improved because of cost reductions and other enhancement measures – EBITDA increased to EUR 24.5m (20.3). A&R Carton is currently the third largest company in the European folding carton market

Sales per region 2009 (%)



The largest market is Germany followed by Russia and Eastern Europe.

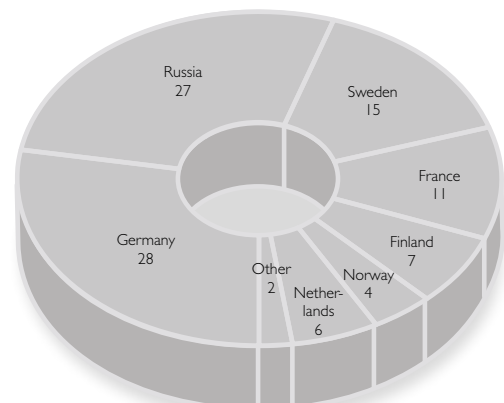


“A&R Carton's mission is to optimize the benefits of packaging in our customers' value chain”

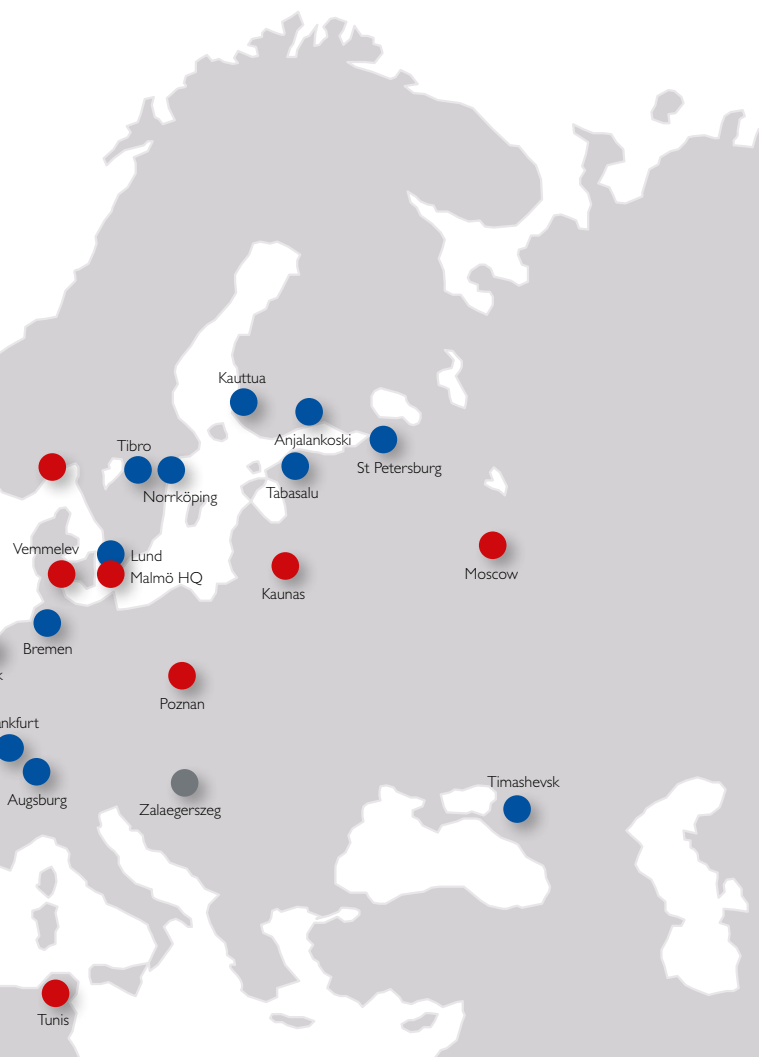
A multinational company

A&R Carton has 1,726 (1,850) employees and 14 production sites in nine European countries, along with sales offices in Asia, Europe, Africa and the United States. The company's production plants are equipped with modern machinery for offset and gravure printing, gluing and hot foil technology. R&D departments and specialists provide tailor-made solutions to customers in eight different market segments.

Average share of employees per country 2009 (%)



The group employs 1,726 people, of whom 28% are women.

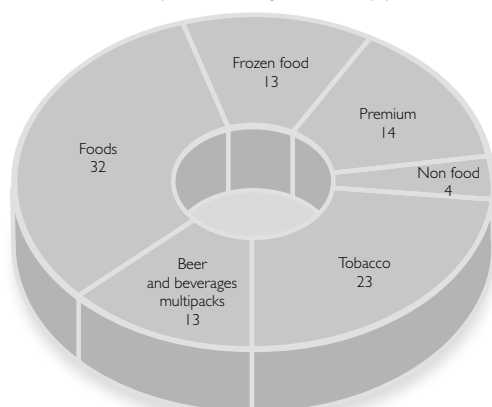


The benefits of packaging

Packaging has three main purposes: to preserve and protect the contents, to appeal and attract at the point of sale and to serve and satisfy the consumer. A&R Carton's ambition is to deliver top performance, i.e. to minimise usage of materials, optimise efficiency in production and logistics and maximise promotion.

The available solutions range from carton packs, trays and multi-packs to high-tech solutions such as Cekacan®, Espresso®, Hermetet® and microwave trays. A&R Carton creates fit-for-purpose solutions in a wide range of consumer market segments. In close partnership with customers and designers, we find the right packaging solution for every need.

Sales per market segment 2009 (%)



A&R Carton provides a broad selection of carton packaging concepts in the consumer-packaging segment.

MANAGEMENT



Per Lundeen

President and CEO
Born 1955
At A&R Carton since 1992,
CEO since 2000

Jean-François Roche

Senior VP Sales & Marketing,
BA Performance Packaging
Born 1966
At A&R Carton since 1988

Niclas Nyström

VP Finance & Administration
Born 1965
At A&R Carton since 2005

Philippe Desveronnières

Senior VP Operations
Born 1963
At A&R Carton since 2000

Harald Schulz

Senior VP BA Branded Products
Born 1964
At A&R Carton since 2001

Gerard DeVries

Senior VP BA Beer & Beverages
Born 1950
At A&R Carton since 1986

Kasper Skuthälla

Senior VP BA Food & Consumer Goods
Born 1978
At A&R Carton since 2008

Our vision is to be the preferred partner for paperboard packaging solutions by being recognised as the leader in innovation, quality and service. Our customer proposition is to supply packaging solutions that are optimized throughout the product life cycle: in production, logistics and distribution, at the point of sale, when used by consumer and when disposed. Accordingly, we aim for excellent understanding of our customer's value chain and business needs.

A&R CARTON'S VISION AND VALUES



■■■■ A&R Carton promotes sustainability across all aspects of the business with special focus on sound paper procurement and converting practices that ensure responsible management of forests and other natural resources.

We take pride in having quality as our signum in everything we do, as we strive for continuous improvement and cost efficiency.



■■■■ A&R Carton acts with a sense of urgency and with the company's best interests in mind. We value mutually beneficial, long-term relationships with customers, partners, suppliers and the community and hold ourselves accountable by honouring our commitment and delivering results.

We challenge ourselves, our customers and our partners in the constant quest for new and better customer solutions. We share knowledge, learn from and utilise each other's strengths.



■■■■ A&R Carton recognises that customer value and satisfactory shareholder return can only be created through our employees in collaboration with our partners and suppliers.

By acknowledging our people as our greatest asset, we aspire to build a stimulating and challenging workplace that attracts, motivates, develops, retains and recognizes high performance. A&R Carton strives to be a company of which our employees are proud to be part.



■■■■ A&R Carton is a truly multinational company where diversity is regarded as strength and our employees are competent and empowered, guided by our values, vision, mission and strategy, rather than managed by rules and regulations.

We safeguard honesty, openness, integrity, fairness and mutual respect. We promote leadership and responsibility, while allowing ourselves to have fun.

In 2009 we have continued to strengthen our leading position as innovator and sustainable developer of carton packaging. We are stepping up our efforts to reduce our environmental footprint. Profitability is a prerequisite for sustainability and A&R Carton sees a positive connection between sustainability and business development – environmental stewardship is a key aspect of competition in the packaging industry.

Letter from the CEO, A&R Carton AB

WE AIM TO GROW THROUGH SUSTAINABILITY AND INNOVATION

A&R Carton has had a tough year following the global economical downturn, but we have performed better than the industry as a whole and we have actually become more profitable despite lower net sales. EBITDA increased by 20.7 % to EUR 24.5m (20.3m). We are now efficiently structured and ideally positioned for continued growth. We see it as an act of confidence that our owner Ahlström Capital in 2009 increased its ownership to 61% with the intention of developing the group further.

Better profitability

A&R Carton's sales decreased to EUR 339m in 2009 (357m). This is a decline of 4.9%, whereas the negative growth in the total market was about 7–8%. Russia contracted most during the period, but this was after a very strong growth period in recent years.

Throughout the recession we have managed to maintain and increase volumes with our biggest and most important customers. Our financial year-over-year result has improved following cost reductions, innovative product developments and enhancement measures making production and procurement more lean and efficient.

Challenging times for the whole industry

The whole carton industry faces challenges from heavy increases in the price of raw materials, something that will lead to more consolidation in the industry. The demand

for raw material – both virgin fibres and recycled fibres – is increasing globally. This coincides with lower supply due to cut-backs in the carton board industry. The carton industry has also been hit by increasing costs as a result of stricter regulations and a greater focus on food safety, leading to an increased need for documentation, more expensive inks and greater use of virgin carton board.

In response to these challenges A&R Carton has developed a new strategy. We are aiming at organic growth and we are also planning acquisitions. The investments made during recent years are now expected to generate sales growth, and our objective is to become the European market leader in paperboard-based packaging solutions.

In 2010 A&R Carton launched a new organization that will play a key role in supporting A&R Carton's strategy. Focusing on those market segments where innovation, quality and service are most critical for success, we are now organized in four more specialized business areas: Beer & Beverage, Branded Products, Food & Consumer Goods, and Performance Packaging. This structure will better correspond to present and future market demands.

Packaging is good

Consumers and distributors need safe, appropriate packaging for handling food and other sensitive products. Packaging preserves food and protects products that



This report is another step in A&R Carton's long-term initiative to further increase awareness, internally and externally, says CEO Per Lundeen.

would otherwise go to waste. Intelligent packaging makes logistics and transportation more efficient. Packaging is also an important advertising space and brand builder for many products. The modern society simply needs good innovative and sustainable packaging solutions.

Our drive for sustainability has positive effects on our business in many aspects. We see cost-cutting resulting from our waste



management programme, production and procurement processes become more structured and sustainability brings an important dimension to our innovations. It also gives us a competitive lead as a reliable and responsible partner. Consumer health & safety and environmental considerations are becoming increasingly more important.

Assuming responsibility for consumer safety is the most important commitment

“ A&R Carton has assumed a position of leadership when it comes to promoting sustainability in the carton industry”.

we can make. Packaging solutions from A&R Carton should always ensure the highest possible safety standards. To take this commitment even further we are adapting our use of ink and varnish and using only low-migration inks on packaging that comes into contact with food.

Carbon footprint studies are favourable for carton

Carton board gains ground as an ecological packaging material in the wake of increasing environmental awareness. Carbon is stored in the wood fibres and carton is a renewable material with low environmental impact compared to other materials. As long as forests are managed in a sustainable way, carton is a premium sustainable choice. At A&R Carton, we make sure that all the carton board we buy comes from sustainably managed forests or from recycled board.

A recent scientific analysis shows that carton is an even more favourable choice when biogenic carbon sequestration is included in the lifecycle analysis. This is an important aspect when comparing carton to alternatives.

Maintaining the lead

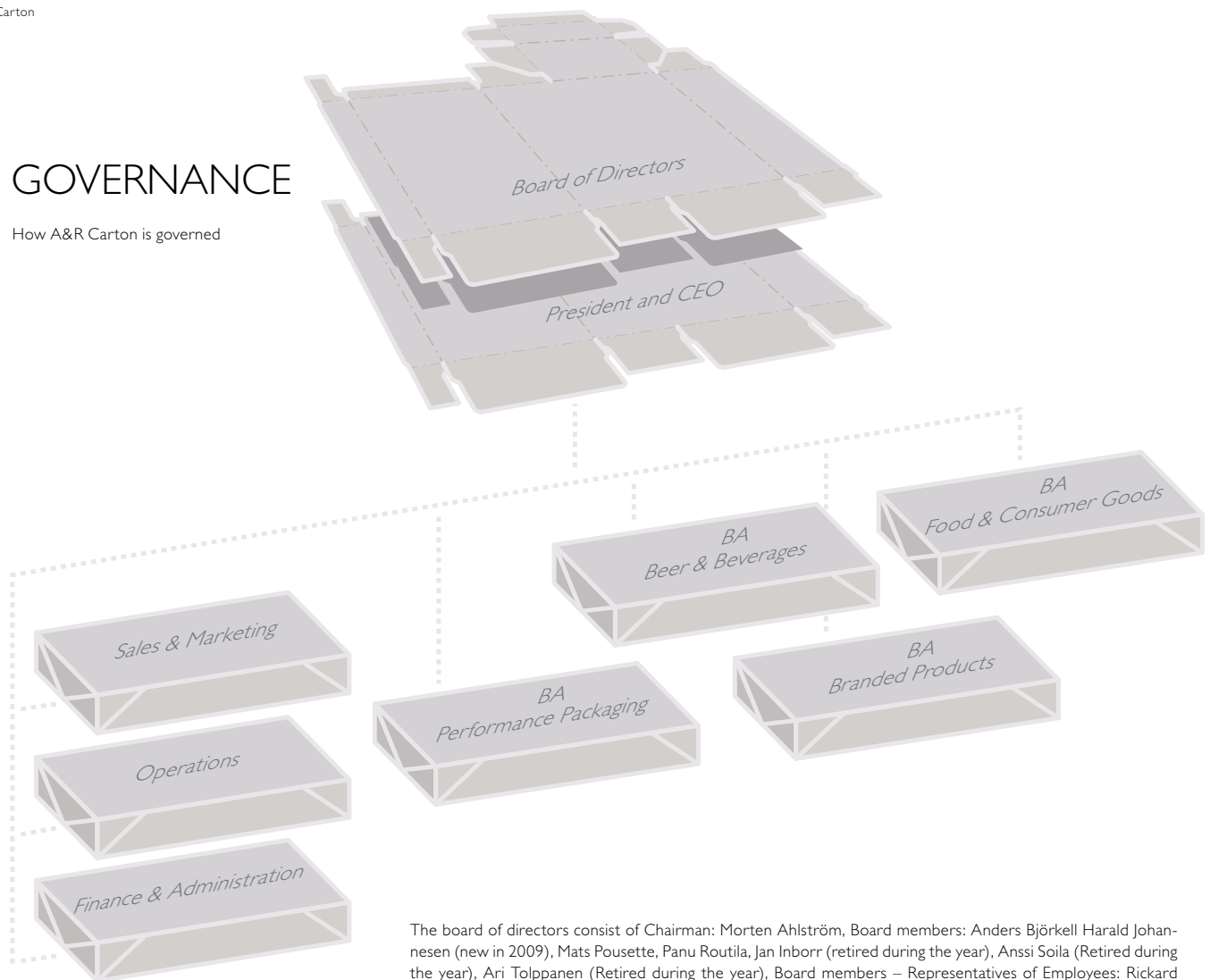
A&R Carton has assumed a position of leadership when it comes to promoting sustainability in the carton industry. In this report we extend our coverage and include a more in-depth description of the circulation of carbon in our value chain. The report also features insights on chemicals and inks in connection with consumer health and safety.

This report is a comprehensive summary of our efforts and a clear declaration that we intend to remain the industry's leader in sustainability and innovation.

Per Lundeen
President and CEO

GOVERNANCE

How A&R Carton is governed



The board of directors consist of Chairman: Morten Ahlström, Board members: Anders Björkell Harald Johansen (new in 2009), Mats Pousette, Panu Routila, Jan Inborr (retired during the year), Anssi Soila (Retired during the year), Ari Tolppanen (Retired during the year), Board members – Representatives of Employees: Rickard Andersson (new in 2009), Lars-Erik Pettersson (new in 2009), Åke Lindahl (Retired During the Year), Claes-Göran Andersson (Retired During the year) and CEO & President: Per Lundeen The board of directors held 4 meetings in 2009. The consolidated financial statements have been audited.

To realise the A&R Carton vision – to be the preferred partner for paperboard packaging solutions by being recognised as the leader in innovation, quality and service – we must work to optimise the benefits of packaging in every link of the value chain. This includes issues relating to environmental impact and social and economic factors. Accordingly, A&R Carton reports the benefits and disadvantages of packaging solutions from a sustainability perspective. The first sustainability report was published in 2008 and included data from 2007. That report was a first step towards a holistic approach to sustainability. This is the third sustainability report and we have expanded its coverage. In our reports we have analysed and defined sustainability issues relevant to our industry.

The reporting process has become a driving force in our efforts. The sustainabi-

lity report in itself is an useful instrument for corporate governance and for optimising internal processes. We aim to continue to gradually expand our reporting, both upstream and downstream.

Code of conduct

The code of conduct is the hub around which our policies and corporate governance are built. It constitutes a framework for A&R Carton's attitudes and principles concerning the environment, ethics and health and safety.

■■■ A&R Carton operates according to principles – governing its relations with employees, partners and other stakeholders – which are based on respect for laws, environmental issues, human rights, labour issues, social issues and customer requirements. We do business according to international principles.

■■■ Environmental Policy

All our work, investments and other activities should be based on a holistic perspective with the aim of continuously reducing the environmental impact of our packaging solutions and operations.

■■■ Human Resources Policy

A&R Carton should be a safe, rewarding place to work. The company is committed to equality of opportunity and diversity, leadership, development, empowerment and safety in the workplace.



A&R Carton became a member of UN Global Compact in 2008 and has adopted its 10 principles on human rights, labour standards, the environment and anti-corruption.

Internal standards

The group management supervises internal standards, requirements and methods relating to Group operations. Internal standards include ISO 9001:2000, ISO 14001, OHSAS, the ECMA guidelines and the CEPI guidelines.

Reporting

Scope: This report aims to present an accurate picture of group performance in areas relating to the environment, social health, safety and business ethics.

Boundaries

Historical data is not available for all indicators. Unless otherwise stated, the data refers to the 2009 calendar year. The report mainly covers A&R Carton's own operations. However we have expanded on a research project initiated by the industry association ECMA. We have also expanded our coverage with a case study about an energy recovery plant and by including an in-depth feature on our supply and use of ink.

The data has been collected from our business system, PECAS, and through direct cooperation with our production plants. The data is verified internally and does not include operations with zero or limited impact on the environment.

Reporting standards and KPIs

The report conforms to the internationally acknowledged GRI (Global Reporting Initiative) standards. Key Performance Indicators (KPIs) used by A&R Carton are selected from version G3 of the GRI standards. The report is self-declared and complies with application level C according to the GRI standards. KPIs were not subject to third-party checks.

Effort program

The sustainable way

Partnership – inviting to innovation

A&R Carton actively seeks partners in innovation among customers and subcont-

ractors with the aim of finding and starting up new projects to design new sustainable packaging solutions. The case study presented in the 2007 sustainability report: TWOBA – Two Piece Open Basket Carrier – was a good example of an innovative process of that kind. This year we present a new case study on innovative cooperation with Semper on page 18.

A&R Carton shares environmental data, both upstream and downstream. This is a prerequisite for conducting credible environmental impact studies throughout the value chain.

Business system

A&R Carton uses a group-wide business system known as PECAS. The data in PECAS ranges from procurement and production – as a shop-floor system – to sales. The system has full capacity for recording all operational data of relevance to this sustainability report. However, we have only recently begun using the system for that purpose. The system was originally implemented to optimise our operations – purchasing, production, logistics and sales – from a business perspective.

We are gradually making system upgrades and implementing new procedures which will provide greater opportunities for

management, data collection and monitoring operations with an environmental impact. PECAS also makes full traceability possible. Every pallet of carton board is marked with an EAN code from the supplier. This code follows the carton board through the entire production process all the way to the individual package, if the customer so requires. This enables us to guarantee the origin of every batch of packages that we deliver.

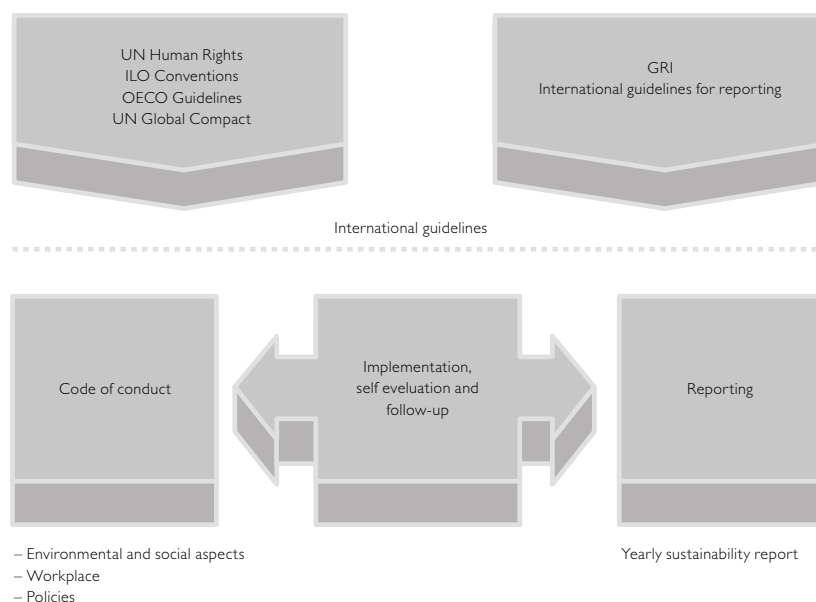
To make this system more useful, from 2009 we will require our suppliers to mark their deliveries in a standardised manner, which will also include information on FSC/PEFC-certification. Using PECAS to coordinate and evaluate our efforts with suppliers and then sharing that information with our customers will make the results of our sustainability work more transparent, both internally and externally.

A new group-wide human resource information system is also being implemented, from 2009. It will facilitate central monitoring of talent management, training programmes, individual appraisals and understanding of policies.

Business organisations

A&R Carton is an active member of ECMA. See page 11 for more details.

Governance and reporting



SOWING THE SEEDS OF IDEAS

A&R Carton has a long history of creativity, development and determination to help our customers realise the potential in their brands. At our headquarters in Malmö, Sweden, close to Copenhagen airport, we collect all our research data in our new Innovation Room.

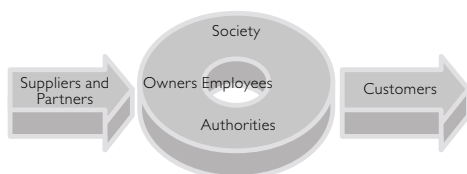
Here, we analyse and translate the information into various packaging scenarios together with our customers. We look at the different aspects of packaging, such as handling, function, sustainability, and much more, to develop the perfect solutions.

A sustainable business organisation should also be an innovative organisation. Good ideas on how to develop better packaging solutions are the basis of what we do at A&R Carton, it is a prerequisite for long-term profits, satisfied customers and more environmentally friendly packaging.

We believe that knowing the current and future needs of our customers is the foundation for innovation. Knowing what triggers a purchase decision gives us the ability to develop packaging solutions that enhance the product value, brand image and visibility at point of sale.

Stakeholder engagement

A&R Carton's key stakeholders are its customers, employees, owners, suppliers



As part of the ongoing work to report and improve on social and sustainability issues, A&R Carton develops channels for stakeholder dialogue along the value chain.



The Innovation room is a hub for collecting and utilizing A&R Carton's knowledge and experience in developing packaging solutions and designs.

and partners. Other stakeholders are the societies and communities, including public authorities, in the places where A&R Carton carries out its operations. A&R Carton communicates with stakeholders at various levels, depending on their relevance to the achievement of the company's goals and their level of involvement in the company's operations.

The normal channels of communication for stakeholders are the company's website: www.ar-carton.com and the annual sustainability report. Communication with employees is maintained through channels such as the intranet, events and meetings with trade unions. The company communicates with the supervisory authorities on specific issues, both directly and through industry organisations. A&R Carton's membership of industry organisations, mainly the ECMA, also includes cooperation on environmental and health and

safety issues. Customers, suppliers and partners take part in a direct, ongoing communication with the representatives of A&R Carton.

A&R Carton has recently launched a new, more interactive, home page, where customers and other stakeholders can easily access information about the company. Customers also regularly receive a newsletter: PackViews. Investments in E-learning and video conferencing have improved communications within the company and a new intranet is currently under development. A&R Carton assist brand owners in communicating packaging benefits with consumers by supplying information on raw material, LCA-analyses and carbon footprints etc. Analyses regarding consumer attitudes and opinions towards packaging solutions and materials are regularly carried out, often in cooperation with the industry organisation ECMA.

A&R Carton works with industry associations, customers and suppliers to increase knowledge and promote an understanding of the carton packaging business.

COOPERATION AND KNOWLEDGE SHARING IN THE CARTON INDUSTRY

ECMA

The European Carton Makers Association (ECMA) is currently the established forum and officially approved umbrella organisation for national carton associations throughout Europe. With its headquarters in The Hague, the Netherlands, and its offices in Brussels, the ECMA represents 500 carton producers in nearly all the countries in the European Economic Area. Around 70% of the total volume of the European carton market, and a current workforce of around 50,000 people, are represented by the ECMA.

The ECMA operates within the regulatory framework of competition law as set out by the European Union and national legal systems. The ECMA actively raises awareness of competition law among its members and encourages them to comply with these rules. The organisation has a broad mission to promote cartons, spread knowledge and drive research projects. The A&R Carton CEO, Per Lundeen, has been the President of the ECMA since July 2008.



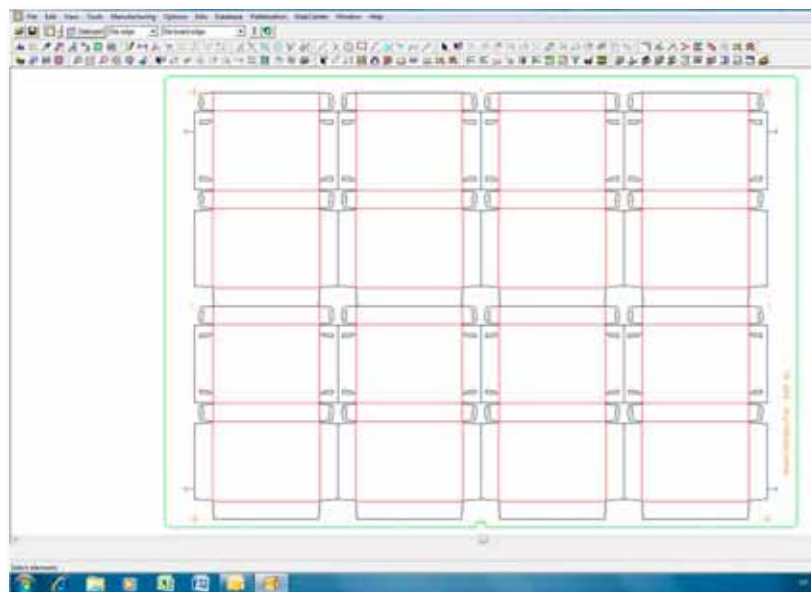
A unifying code system

Back in the 1960s, the organisation had already developed a standardised code system to facilitate better communication within the industry through the supply chain. This is a good example of how an industry association can work for the good of all of its members. Recently, the code system has

been digitalised and improved, thus becoming more user-friendly and apt for communication. The ECMA Code is a communication and information tool that serves as a standard of reference across the supply chain. The ECMA coding system is widely used within the folding carton industry and has been based on an 8-digit code system that easily explains the structure of different packaging designs. With the new ECMA digital software, the 250 most common generic designs available in the market are categorised by market segment and constructional properties. Developers can use the code to select basic designs that they want to use as starting point, and then export them to their Cad/Cam system to develop new customised designs, which, in turn, can be added back to the ECMA Code so as to develop their personal catalogue.

The benefits for customers are: a broader view of possibilities, generic de-

sign codes, a better understanding of the industry's supply chain approach, easier communications and fewer misunderstandings. For the carton converter it becomes easier to calculate prices, analyse quality and plan workflow in order to optimise production. Nesting also becomes easier, ie the positioning of the design on a carton board and assessing waste – which is valuable both from an economic and environmental perspective.



Nesting is the process of efficiently manufacturing parts from a flat board of carton. Special software tools are used to optimise material use and minimise waste.



A&R Carton's approach to environmental sustainability is best described as eco-efficiency: combining ecological and economical considerations. Sustainable development is a continuous process of improving both business and environmental performance.

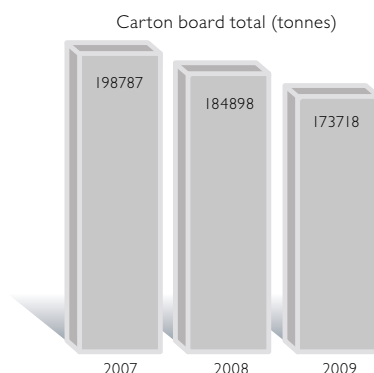
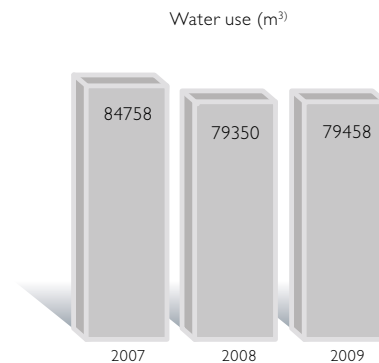
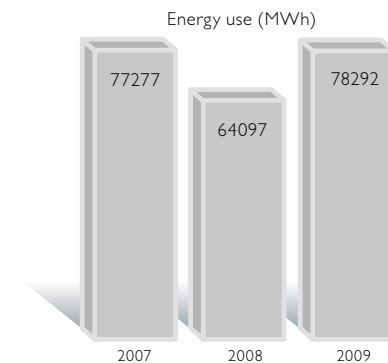
ENVIRONMENTAL IMPACT

All our work, investments and other activities should be based on a holistic perspective with the purpose of continuously reducing the environmental impact of our packaging and our operations. A&R Carton promotes sustainability across all aspects of our business with a particular focus on sound paper procurement and conversion practices which ensure responsible management of forests and other natural resources. There were no instances of non-compliance with environmental laws and regulations in 2009.

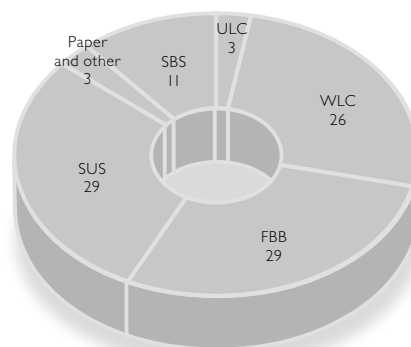
Materials used

The main material used by A&R Carton is carton board, which is made from wood pulp. Wood is a naturally renewable resource that comes primarily from sustainably managed European forests (see page 14). No wood comes from rainforests or other endangered eco-systems. A&R Carton procured a total of 173,718 tonnes of carton paper in 2009 (184,898). The decrease is mainly a result of a change in our product mix and a lower production volume. It is also partly a result of our work to develop new packaging solutions. By producing more efficient constructions we can down-gauge the thickness of the carton boards.

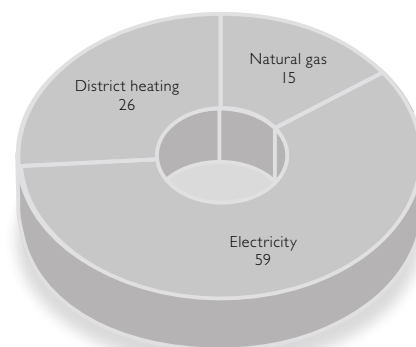
Of the total procured volume, approximately 50,370 tonnes (55,285) – or 29% – came from recycled carton board. The decreasing proportion of recycled carton board is a result of a change in our product mix. Over 99% of production waste is recycled. Our main suppliers of carton board in 2009 were (in alphabetical order): Careo, Fiskeby, Flextrus, Iggesund Paperboard, Klabin, Korsnäs, Mayr-Melnhof,



Types of carton board procured by A&R Carton (%)



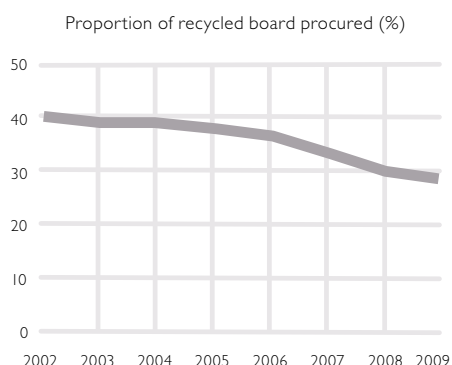
Distribution of energy type MWh. The whole group (%)



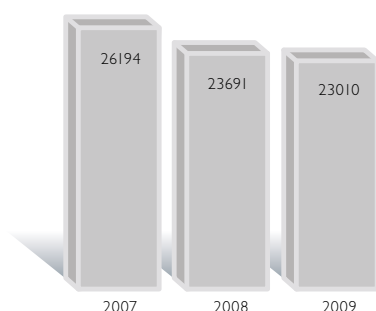
M-Real, Stora Enso and Walki. All suppliers of board are ISO 14001 certified.

A&R Carton used 2605 tonnes (2,785) of ink and varnish for printing packages. These substances were mainly supplied by (in alphabetical order): Flint Group, Michel Huber Group, Siegwark and Sun Chemicals. All suppliers are ISO 14001 certified. A

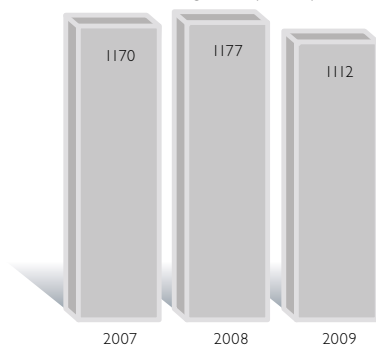
total of 1,112 (1177) tonnes of cleaning fluids, primarily ethanol, were used in production. Some packages have an aluminium barrier-film to protect food contents. 109 tonnes (105) of aluminium and 352 tonnes of flexibles (plastic film) were procured during 2009. Aluminium and plastic film are used as functional barriers to protect food.



Truckloads



Cleaning fluids (tonnes)



Energy use

A&R Carton's production units used a combined 78,292 MWh of energy in 2009 (64,097). Projects to enhance energy efficiency are in progress at A&R Carton. Reducing energy consumption is not only an environmental consideration; it is also significant in terms of cutting production costs and making the units more competi-

tive. The increase in 2009 is related to the cold winter weather.

Rising energy prices and the global focus on climate change make efficient energy use an increasingly important issue. The production units buy electricity from external suppliers and this electricity comes from a mix of sources, depending on the location of the plant.

At the Nordic facilities, the typical mix is 52% renewable sources, 29% fossil fuels and 19% nuclear power. In Germany, the typical mix is 17% renewable, 67% fossil and 16% nuclear. The exact mix varies by location and energy supplier.

Water use

The Group used 79,458 m³ of water in 2009 (79,350). Different kinds and qualities of raw carton paper require different quantities of water in the refinement process. Individual Group production facilities are not wholly comparable because they concentrate on different types of production.

Emissions and waste

Rotogravure printing can give rise to fumes in the drying process for inks and varnish. Those fumes are subject to emission limit values according to the European VOC Solvent Emissions Directive (SED).

A&R Carton plants in the European Union which use rotogravure printing have installed incinerators to burn the exhaust – thereby reducing emissions. There are no other significant direct emissions from A&R Carton's production processes.

The supply of raw materials and the distribution of our products to customers takes place mainly by road. In 2009, a total

of 23,010 (23,691) truckloads were delivered to or from A&R Carton's facilities. We are working to increase the proportion of goods transported on railways. However, the potential varies according to location.

A&R Carton is also working to reduce travelling by investing in equipment for video conferencing and E-learning. At group level, we estimate that the potential savings in travel costs alone will amount to about EUR 2m.

Product life cycle

Packages become waste when end consumers choose to dispose of them. Carton is recyclable and can be used to make new paper pulp or incinerated to generate energy. Recycling practices vary by country and location. A&R Carton labels packages with instructions for suitable disposal. A&R Carton conduct LCA's (Life Cycle Analysis) to calculate the carbon footprint of selected products. Please see page 14 for a description of the product life cycle throughout the value chain.

HS&E Group Manager

Sammy Hallgren is HS&E Group Manager, responsible for development, implementation and support for health, safety and environmental policies, programmes and



practices throughout A&R Carton's operations.

The HS&E Group Manager coordinates internal efforts and resources dedicated

to improving A&R Carton's sustainable business model. Sammy Hallgren is also member of the ECMA Safety Council.

MATERIAL FLOW IN OUR VALUE CHAIN



Carton board is the basis of our business. It is a material made of wood pulp supplied by companies which manage forests and pulp mills. This section explains the nature of forest products as a renewable resource. The wood fibres used in carton can be of two kinds: Virgin fibres that come directly from freshly harvested wood or recycled fibres from used packaging which has been returned and reprocessed.

The carton boards that we convert to packaging typically consist of a mix of recycled and virgin fibres. Depending on the type of packaging, the material contains different proportions of virgin and recycled fibres to achieve the desired quality.

Fibres which have been recycled and

reused gradually deteriorate in quality – which means that new fibres must be fed into the process.

Carton – a renewable resource

Wood from sustainably managed forests is a renewable resource and as such has no impact on climate change, even when it is incinerated and recycled to create energy. The CO₂ released into the atmosphere when the material is incinerated is absorbed back into the wood when new trees grow. Fossil fuels, in contrast, are non-renewable and the CO₂ released from their use adds to the greenhouse effect.

The flow of raw material in the carton industry is therefore a relatively clean sys-

tem when it comes to carbon footprints. However, it is not a closed system. Energy is put into the system at paper mills, in the recycling process and during transportation, etc.

The energy mix differs according to the location of paper mills and recycling stations. In the Nordic countries, the energy mix typically consists of water power (a renewable source), nuclear energy and bio fuel (often supplied from spills in the forestry industry).

Fossil fuel emissions in our value chain are mainly caused by truck and sea transport of logs, carton boards and packaging. On page 17 there is a more in depth analysis on carbon footprint for carton products.

FACTS PEFC

The Programme for the Endorsement of Forest Certification (PEFC) is an international non-profit, non-governmental organization dedicated to promoting sustainable forest management through independent third-party certification. PEFC is the certification system of choice for small forest owners including family- and community-owned forests. The PEFC label assures customers that a product is made of raw material from sustainably managed forests.



- About 225 million ha forest area are managed in compliance with PEFC, distributed over 34 countries.
- 481486 forest owners.
- 6707 companies have PEFC CoC certificates.

(may 2010)

FACTS FSC

The Forest Stewardship Council (FSC) is a nonprofit, independent, nongovernmental organization that promotes responsible management of the world's forests. FSC provides standard setting, trademark assurance and accreditation services. Products carrying the FSC label are independently certified to assure consumers that they come from forests that are sustainably managed.



- More than 134 million ha forest worldwide were certified to FSC standards, distributed over 80 countries.
- FSC is the fastest growing forest certification system in the world (UN FAO, 2007)
- With over 17386 CoC certificates.
- The value of FSC labeled sales is estimated at over 20 billion USD.

(may 2010)

FSC PROJECT ACCOMPLISHED

In 2009 the plant in Sneek undertook a pilot project to become FSC certified. The project was successfully finalized during the second half of 2009. The main challenge was to modify A&R Carton's business system (PECAS) to facilitate full traceability of carton board from the suppliers – through printing and converting processes – all the way to delivery. With the modified PECAS system, the process of tracing batches runs almost automatically and with very high reliability. A&R Carton can easily transfer the knowledge acquired in Sneek to other sites within the group. During 2009 the plant in Bremen was successfully audited and in 2010 the plant in Norrköping also acquired an FSC certificate. In 2010 the plants in Sneek and Bremen will also become audited for PEFC certification.

FSC and PEFC are two independent organizations, but with similar requirements. By being certified by both organizations, A&R Carton can access an increased supply of certified carton board and offer a broader selection of certificate labels to customers.

"Our effort to become FSC certified has received very positive reactions among our customers and our ability to supply customers with packages made of certified raw materials is an increasingly important competitive factor", says Gerard De Vries, BA Beer & Beverages and Plant Director at Sneek and Bremen.

SUSTAINABLY MANAGED FORESTS

Sustainable forest management balances economic, social and environmental concerns to meet today's needs while guaranteeing that there will be forests and wood for future generations. Environmental concerns centre on conservation of biodiversity, soil protection and maintaining water quality and quantity. Social aspects centre on respect for human and labour rights. Economic concerns centre on running business operations in a feasible manner in the long term. These concerns must be balanced and the right balance varies from region to region.

A&R Carton only procures carton from sustainably managed forests and pro-

notes suppliers whose activities are subject to forest certification.

Forest certification is an externally-assessed process which ensures that forest management meets certain standards. There are two leading forest certification standards: the Programme for the Endorsement of Forest Certification schemes (PEFC) and the Forest Stewardship Council (FSC). A&R Carton promotes certification by both organisations.

A forest can be sustainably managed even if it is not certified. Only about 8 per cent of the global forest are were certified in 2009 – although the proportion is growing.

Case: Sysav

ENERGY RECOVERY OF WASTE

Waste to energy is an important complement to other waste treatment. Using waste as a fuel contributes to lower carbon dioxide emissions if it replaces the use of fossil fuels. Waste can also largely be considered a bio fuel, as approximately 85% of the waste by weight is comprised of renewable material. Optimised running and an advanced process for cleaning the flue gas minimises the impact of operations on the environment, while waste is converted into valuable energy. Three tonnes of waste can produce around the same amount of energy as one tonne of oil.

The best way to take care of used cartons is to recycle the wooden fibres into new material. In Sweden 74 percent of the country's waste paper, carton and corrugated board was recycled as material in 2009. However, some of the packaging ends up

in the usual household waste. In Sweden this waste is mostly used for energy production in waste-to-energy plants. Also waste from recycling of carton board, for example discarded paper fibres, can be used for energy recovery.

A modern energy recovery plant

Sysav is a regional waste management company in the south of Sweden whose ambition is to maximise the recovery of material and energy and to minimise the use of landfills. A combination of methods is used to ensure that waste is utilized as a resource in the best possible way.

Sysav has a waste-to-energy plant, and the waste that is used as fuel is made up of domestic waste along with combustible waste from businesses and recycling centres.



In Sysav's waste-to-energy plant waste is incinerated and converted into valuable energy.

The temperature in the furnaces where the waste is burned is normally over 1,000 degrees Celsius. After combustion different types of residues remain and need to be taken care of.

Flue gases are cleaned in several steps: Dust is removed with an electrostatic precipitator. Three scrubbers remove various substances which are washed out with water. And finally, a catalyst is used to reduce nitrogen oxides.

Roughly 15–20 percent of the waste, by weight, remains as slag. Scrap iron and other metals are separated from the slag for recycling and the remaining slag in the form of gravel can be used as hard core or aggregate for construction purposes. Ashes and sludge from the flue gases contain contaminants, such as heavy metals and are deposited in environmentally friendly terminal storage facilities.

Sysav is permitted to burn 550,000 tonnes of waste each year. From this, approximately 1,400,000 MWh of district heating is produced. This is enough to heat 70,000 small homes. The plant also produces 250,000 MWh of electricity.



The temperature in the furnaces where the waste is burned is normally over 1,000 degrees Celsius.

¹According to statistics from The Packaging and Newspaper Collection Service in Sweden in 2009.

An executive summary on new findings about:

CARBON FOOTPRINTS AND CARTON PACKAGING

The independent research organisation IVL has carried out a research project on behalf of ECMA, (the Biogenic project). It provides a theory and method for including the positive effects of sustainably managed forests in the calculation of the carbon footprints of carton packaging.

Calculating carbon footprints

Every manufactured product has an effect on the environment. This effect can be measured by analysing a product's life cycle in terms of resources used to manufacture a product, the way it is used and the waste at the end of a product's life. The carbon footprint of a product is the measurement of a product's life-cycle effect on CO₂ in the atmosphere. How to measure carbon footprints is a key topic when debating sustainability.

The aim of the Biogenic project was to establish a method that takes the whole product life cycle into account: from the production of raw material all the way to the disposal and treatment of the final waste. This is valuable because it will make the carbon footprint comparisons between carton and other packaging materials more accurate.

Carbon is stored in forests

When trees grow they absorb CO₂ and release O₂ – this process is called photosynthesis. Therefore, as forests grow, they remove carbon from the atmosphere on an enormous scale. The absorbed carbon is stored in wood fibres, (the cellulose [C₆H₁₀O₅]_n). A key point is that trees absorb carbon when they grow; therefore, actively managed forests remove carbon from the atmosphere at a higher rate than

non-managed forests. The non-managed forests decay at approximately the same rate as they grow, and so do not remove CO₂ from the atmosphere.

IVL has developed a methodology for measuring biogenic carbon in cartons by relating the natural raw material, the cellulose, to carton board packaging. IVL explains the link as follows: *"Demand for cartons stimulates demand for timber, which in turn encourages the sustainable management of forests. Therefore, choosing cartons encourages the capturing of CO₂ to make a renewable material."* Currently, sustainably managed forests in European countries grow at a higher rate than they are being felled.

Cartons store carbon

According to the calculations made by IVL, 1 tonne of carton board corresponds to about 0.99 tonnes of cellulose, which corresponds to about 402 kilograms of carbon. This, in turn, represents a CO₂ intake of 1,474 kilograms from the atmosphere.

Based on these results, ECMA promotes the integration of biogenic sequestra-

tion as part of the Product Category Rules (PCR) for the development of an Environmental Product Declaration (EPD) for containers of paper and paperboard. Including the positive effects of sustainably managed forests in the Life Cycle Analyses (LCA) for carton products shows the big advantages over fossil materials. The conclusion is valid when the raw material comes from sustainably managed forests only, which makes traceability important.

Recycling prolongs the material life cycle

When carton is recycled the stored carbon is prevented from going back into the atmosphere. Fibres can be recycled approximately seven times, after which they can be used as biofuel in energy production. According to IVL's calculations, 1 tonne of carton can be recovered to produce, on average, 0.7 MWh of electricity or 1.2 MWh of heat. Waste to landfill is undesirable because the decaying cartons release methane gas (CH₄) back into the atmosphere without any energy recovery.

CARBON FOOTPRINT OF CARTON BOARD

Cradle to grave including avoided emissions	1127	kg CO ₂ /tonne carton
Biogenic CO ₂ net sequestration in managed forests	-730	kg CO ₂ /tonne carton
Net carbon footprint including sequestration	397	kg CO ₂ /tonne carton

This means that the carbon footprint of carton is less than 7% of that of fossil based materials.



PACKAGING BABY FOOD IS NO CHILDREN'S PLAY



A&R Carton has extensive experience in developing packaging with high usability and impenetrability, which are very important functions for baby food. At the beginning of 2008, A&R Carton was contacted by the Swedish food company Semper, to develop a new packaging solution for baby porridge and infant milk formula.

A&R Carton's extensive experience in developing packaging for children's food, was a determining factor in Semper's choice of supplier.

Based on broad knowledge gained from different market segments, A&R Carton presented a solution based on pre-glued lined carton. This resulted in a packaging with several value-adding benefits such as a

44% reduction in carbon footprint compared with the predecessor; a higher degree of filling (less air inside the package) and a fin seal that minimises the risk of leakage at critical points. The package also has a user friendly reclose function.

Maximum protection of the content

The packaging consists of carton board, which adds stability, and a flexible peel able liner that gives the contents maximum protection. It is easy to open and re-close, and very stable to pour or scoop from. Another value-adding function is an automatic scoop inserter, developed by A&R Carton's own engineers.

The newly designed scoops are stacka-

“ This package meets the market's demands for food safety, convenience and sustainability”.

Henrik Herlin, sales manager Europe, A&R Carton Lund.

ble, to facilitate easy transportation and easy loading of the packaging machine.

New manufacturing equipment

The connection between a new package and the machinery that manufactures it is of great importance, so new Hermic MA equipment was developed alongside the packaging. The machine packs in a modified atmosphere (MAP), has totally four sealing stations and a docking station for scoop insertion.



Semper has named their new package SmartPack.

44 % LOWER CARBON FOOTPRINT

Greenhouse gas emissions from Hermetet® and the former "Bag-In Box" solution are mainly caused by the materials, generating greenhouse gas emissions of 33 g CO₂ eq/ Hermetet® package and 68 g CO₂ eq/Bag-In Box. Transports generate greenhouse gas emissions of 14 g CO₂ eq/ Hermetet® package and 17 g CO₂ eq/Bag-In Box. The total amounts of greenhouse gas emissions from the packaging systems are 49 g CO₂ eq/Hermetet® package and 88 g CO₂ eq/Bag-In Box. Summing up the emissions from materials, transport and production show that the Hermetet® alternative will save 44% greenhouse gases compared to the Bag-In Box alternative. The LCA was performed in cooperation with the technical consultancy Grontmij.

M + Q WAY WASTE MANAGEMENT PROJECT



Project leader Eszter Gattmer regularly visits all of A&R Carton's plants throughout Europe and Russia to optimise production and reduce waste levels.

A&R Carton continuously works to minimise the waste that is generated from its production lines. During 2009, a waste management project was initiated within A&R Carton to specifically address this issue. The waste management project is a part of the "M + Q Way" programme, which aims to reduce operational costs and achieve more effective production lines.

Waste reduction is crucial for profitability within the carton board industry. The project will not only reduce the cost of total waste but will also have a positive synergy

“ There is a direct bottom-line effect of minimizing waste, it simply means lower costs”.

Ezster Gattmer, Production System Manager.

on the efficiency and capacity of the different production lines. It involves all of A&R Carton's plants and has been running since the second half of 2009. More specifically, the project is focused on waste reduction in the processes of sheeting, printing and gluing.

The roll-out is carried out with the company's production system manager Eszter Gattmer at the forefront of the operation. The main target groups are the process engineers and the operators working on the production lines. The project leader provides information and initiates discussions with the crews, brainstorming and working on measures to reduce waste.

She also conducts monthly follow-ups to support the teams at each site with continuous feedback.

There is an estimated EUR 7 million savings potential in waste reduction throughout A&R Carton's plants. "We have estimated that there are waste reduction potentials from 20% to 50% in plants, depending on current waste levels," says Eszter Gattmer.

Across the organisation, there is a mutual understanding for both the environmental and business benefits of reducing waste levels. Because of the strong internal support, the project ambassadors are convinced that the project will reach its objectives ahead of schedule.

"The goal is to generate as little waste as possible and to ensure that what is left over is properly recycled. The work has to be done in the factories at production-line level – a very hands-on job," concludes Eszter Gattmer.



SORTING IS NO WASTE OF TIME

One of A&R Carton's strategic joint venture partners is CC Pack in Tibro, Sweden. A&R Cartons' share of ownership is 50%.

The company was founded in 1985 and has had steady growth since. In 2008 CC Pack invested in a new factory building that gave the company a total production capacity of 400 million trays per year, making the plant market leader in carton board trays in Europe. During its construction, the plant invested in a new recycling room.

The room facilitates the handling of plastic, carton board, aluminium and inflammables. The waste is sorted for corrugated material, chemicals, glass, batteries, strip lights, office waste, electrical and iron waste.

After the waste is sorted, it is collected

by an accredited company that recycles the material. Sorting the waste is actually profitable because CC Pack receives compensation for some of the waste.

"We have containers for collecting waste all over the factory. Waste is also gathered automatically, directly at the machines and sent through pipes to the recycling room", says Therese Eriksson, Quality Manager at CC Pack.

Therese emphasizes the importance of being in the forefront of sustainable development:

"It is a long-term strategy to meet the customer's future demands and it also generates immediate benefits both for society and for the company", she says. Since 2005 the plant is measuring the total quantity of

waste that is sent for recycling. CC Pack also measures the percentage of waste generated in production. The measurements are used to make further improvements. So far waste management work has resulted in a reduction of waste from 5% in 2008 to 2.7% in 2009. Some waste is inevitable and with the new environmental room the factory is able to care of it in appropriate ways.

SUCCESSFUL AUDIT

In November 2009 Intertek, an international consultancy firm specializing in the quality and safety of products, processes and systems, visited CC Pack, on behalf of McDonald's. In order to qualify as a supplier to McDonald's, a social accountability programme must be completed and auditing the factory is an integrated part.

During the audit, Intertek was impressed by the environmental room, stating it was one of the best they had seen and a best practice example.



Waste is automatically gathered directly at the machines and sent through pipes to the recycling room

CONSUMER HEALTH AND SAFETY

A&R Carton has a critical role in guaranteeing the quality and safety of our customers' products. A&R Carton manufactures packaging solutions in which carton board is the main component. This means that, as far as our products are concerned, the main safety consideration is preserving and protecting the contents of the package. We assume a high degree of responsibility for consumer safety in terms of the safe preservation of contents and the minimisation of potential adverse effects of packaging on the contents.

One example of an adverse effect is the migration of substances from the packaging to the food it contains. Migration tests are routinely performed to safeguard consumer safety. Overall, migration is measured using specific food simulates which are substituted for the end product. The residual solvents and monomers can be determined using static headspace gas chromatography when required.

Close cooperation with our customers is an absolute prerequisite during testing, in order to establish an adequate level of control based on an understanding of the distribution and end use of the product.

Extensive safety procedures

A&R Carton meets high safety standards by using low-migration colours and minimising set-off on the inside of food packaging. Implementation of the EC-integrated approach to food safety is aimed at guaranteeing high safety levels. A&R Carton implements extensive procedures and complies with the requirements of European food contact law and additional requirements imposed by local legislation, customers and certification bodies.



Aluminium flex-lid membranes are used in the CEKACAN® as functional barrier to protect the food content.



A&R CARTON APPROACH TO FOOD SAFETY ISSUES

1. **We are already prepared** for compliance with new requirements under EC law.
2. **We provide access** to documented knowledge to suppliers and within the A&R Carton organisation.
3. **We are responsive** to present and future customer requirements.

A&R Carton provides the product specifications required by customers to determine food quality or safety for a specific distribution method or shelf life. By sharing information and being open to customer enquiries, the company enhances product safety for the end customer. Routine observation is subject to both internal audit and third-party inspection by external certification bodies.

Protecting food

The packaging exists to protect the food, make distribution and handling easier and

to promote the product. The packaging should not contaminate the food (i.e. leave substances in the food that have not been intentionally added to it). The legislation on food contact materials states that these materials shall not transfer their components into food in quantities that could endanger human health or change the composition, taste or texture of the food.

Risks can be linked to the packaging material, especially if the material itself includes chemical substances, such as different plastics. Other risks can be linked to ink and varnish that is used to make the packaging attractive and provide the consumer with information about the contents.

Hazardous substances are categorised by the European Food Safety Authority (EFSA) and are provided with a Specific Migration Limit (SML) that must not be exceeded.

ON ALERT TO KEEP CONSUMERS SAFE

Europe's rapid alert system

In Europe, the national control authorities are responsible for food safety inspections. The authorities cooperate through the RASFF, a system supervised by the European Commission. The purpose of the RASFF is to be an effective tool with which to exchange information regarding measures taken to ensure food safety.

Each state in the European Union (EU) and EFTA is responsible for sending notifications to the Commission if they have information about a food-related health risk. They must also notify the Commission on measures taken, i.e. recalling food from the market.

The Commission has the responsibility for managing the system: providing knowledge and a platform for transmitting and handling the notifications. The Commission performs checks on the notifications before forwarding them to the members of the network. The checks include: completeness, legislative requirements, verification if the subject falls within the scope of RASFF, classification, members of the network flagged for action and recurrences of similar problems.



FOUR TYPES OF NOTIFICATIONS:

Alert notifications are sent when a food product presenting a serious health risk is on the market and when rapid action is required.

Border rejection concerns food consignments that have been tested and rejected at the external borders of the EU (and the European Economic Area – EEA).

Information notifications are used when a risk has been identified about food or feed placed on the market, but the other members do not have to take rapid action. This is because the product has not reached their market or is no longer present in their market or because the nature of the risk does not require rapid action.

RASFF News includes any information related to the safety of food that has not been communicated as an alert or an information notification, but which is judged to be interesting to the control authorities.

RASFF publishes weekly overviews and an annual report.

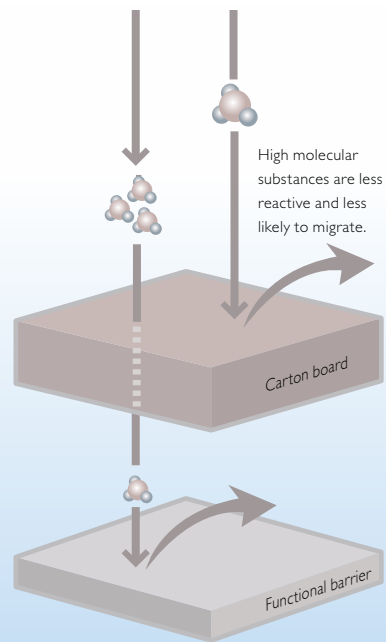
Please note that the descriptions on this page are intended as general explanations only. For in-depth information on substances and practices please contact Sammy Hallgren, HS&E Group Manager at A&R Carton.

LOW-MIGRATION INK

A&R Carton has taken the decision to use only low-migration inks and coatings for off-set printing of packages that are used as primary packages for food. Prior to this, A&R Carton used low-odour inks that are now being phased out. Low-migration inks are manufactured from raw materials and components that are REACH evaluated and provided with a SML by EFSA.

The inks have as high a molecular structure as possible, making them less likely to migrate and react with other substances. The ink is manufactured in separate facilities to avoid any contamination and to ensure full traceability. Every step of the production process also follows the GMP standard set up by The European Printing Ink Association. The inks are comprised so that each of the ingoing substances always stay below SML when printed on carton boards, in normal quantities.

The more complicated approval process and the need for separate production lines are initially making low-migration inks more expensive than conventional low-odour inks. But as more and more converters will adopt low-migration ink, the costs will come down.



Low migration inks makes functional barriers unnecessary from a migration risk perspective.

RASFF and the packaging industry

The packaging industry deals with RASFF when it comes to risks relating to packaging material. Carton is a natural and renewable material that it has no adverse effects on food. However, if a food inspection reveals traces of substances in the food that do not belong in it, further tests should be performed to find the contaminating source. In the event that the packaging should be verified as the source, further analyses to find out what is wrong should be carried out in collaboration with the packaging supplier.

The packaging might, for instance, have been contaminated because of a mistake in the production process or during transportation, or it might have been wrongly used, etc. If the Commission judge the substance, that has exceeded the SML, to be a serious

health risk, then the contaminated packages must be recalled from the market. To successfully perform a recall, the packaging supplier, food company and retailers involved must together be able to trace which batches of the packages have been affected and where they have been delivered in the market.

A&R Carton and the industry association ECMA closely monitor RASFF notifications and are fully prepared in the event that a notification should be linked to a carton package. A&R Carton ensures batch traceability from procured raw materials throughout production through to customer delivery. The company has never had to recall any packages following an RASFF alert or notification. For A&R Carton's approach to consumer health and safety, please see page 21.

Supplier Case: hubergroup

INK OUTSIDE THE BOX!

A&R Carton cooperates closely with its suppliers of ink, varnish and other chemicals to ensure traceability, quality and safety.

"Having close relations with a few carefully selected suppliers makes control easier and builds trust," says Lennart Aveling, Procurement Manager at A&R Carton. The hubergroup is an important supplier and one of the leading specialists in printing inks and varnish. The hubergroup is investing strongly in their MGA brand – a line of low-migration ink and varnish. "We believe that low-migration products will become the new standard and that they will dominate the market for food contact packages in the future," says Sales Manager Thomas Polster at hubergroup. The MGA line is complete for off-set ink and varnish. They have also developed market-ready low-migration UV-inks. Solvent-based ink for rotogravure is

still under development. So far there are no printing inks that are approved for direct contact with food.

The production of GMP (Good Manufacturing Practice) compliant printing inks poses special technical demands, thus the hubergroup has invested in a new production site in Ireland for MGA inks and a separate mixing station in Germany. Keeping the MGA products separate from other products ensures full traceability and removes any risk of contamination from non-MGA products.

Supplier cooperation

Transparent exchange of information between ink manufacturers and printers, such as new findings from research, is very important to ensure a high standard for safety and quality. The hubergroup continuously monitors decisions from authorities and the



RASFF's news in order to provide customers with information on substances and findings. The hubergroup also offers customers, like A&R Carton, training and seminars through its Ink Academy.

GMP

Good manufacturing practice (GMP) is a management tool designed to prevent migration, organoleptic changes and contamination. It is also a tool to ensure compliance with the most important requirements with regard to GMP for the production of packaging inks for use on non-food contact surfaces of food packaging and articles intended to come into contact with food. GMP ensures that only approved raw materials are used, production is contamination free, raw materials are easy to trace, special cleaning systems are in place and that the control is adequate.



Mixing station for low migration inks, at the hubergroup in Germany.

hubergroup 10-POINTS MGA® QUALITY CONCEPT

1. Evaluated Components
2. No confusion of raw materials
3. Purity of raw materials
4. No risk of contamination in Production
5. Quality control
6. Traceability
7. Certificate from independent laboratories
8. Advice and education
9. Inhouse Analysis
10. Guarantee

Case:

CLEANING OUT UNNECESSARY CHEMICALS

Chemical substances are regularly used by A&R Carton in the production process.

Some are used directly in and on the products, such as printing inks and varnish – others are used when operating the machines, such as grease and cleaning solvents. Chemicals are kept in separate storage rooms subject to permission from local fire departments. There are good reasons for keeping the number of different substances at a minimum, since it makes handling easier and minimizes the risk of mistakes.

A recent study conducted in Norrköping, Sweden, suggested that a large proportion of the chemicals kept at the plant were obsolete. When making an inventory of the chemical stock in Norrköping, there were

250 different substances in stock, of which 36 were classified by the Swedish Chemicals Agency (KEMI) as potentially harmful. The contents of all substances were subsequently researched and after thorough evaluation the number of substances was reduced to 188 of which only 13 are still classified by KEMI. Some of the substances were interchangeable, some could be substituted with safer alternatives and some were of no use at all.

VOcational training

The Norrköping plant has also set an example in proactively working to reduce levels of VOC emissions (Volatile Organic Compound). VOC limits vary between and within countries. In Sweden the VOC limits

are set by the local county administration and the limit for the plant in Norrköping is 0.8 tonnes VOC per million square metres



of printed carton. In 2007 emissions were close to the limit (0.79 tonnes) and the plant decided to take action. Improvements were made by finding better-suited solvents and

by upgrading the machines.

"We have also worked to increase employee knowledge of solvents and our permitted VOC limit. This has led to a more careful attitude and has stopped any excessive use", says Johan Engberg, Environmental Officer at A&R Carton Norrköping.

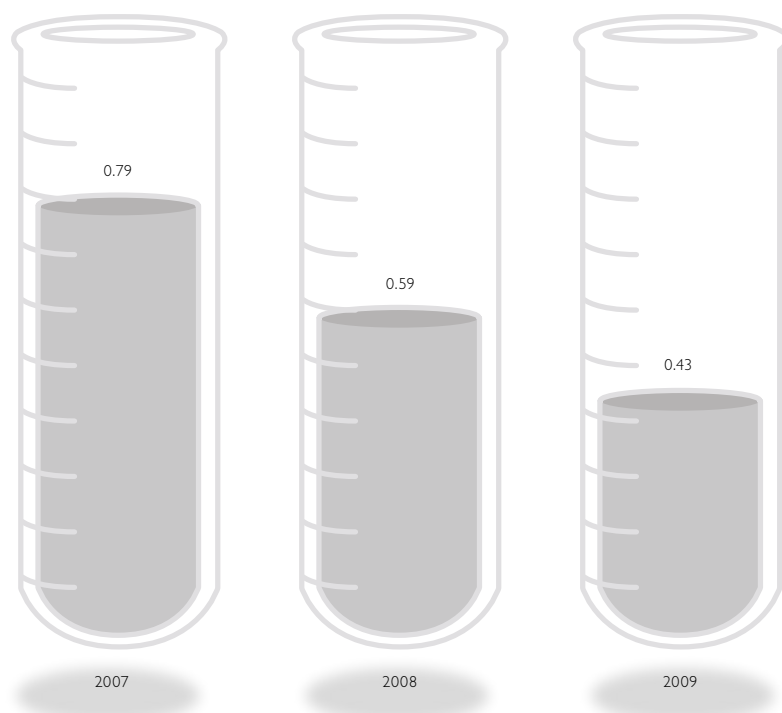
The results of our efforts took immediate effect, in 2008 emissions had dropped to 0.59 tonnes and in 2009 it was down to 0.43 tonnes per million square metres of printed carton.

Strict routines

Whenever a new chemical substance is being considered, the environmental officer at an A&R Carton site is responsible for evaluating the substance. No order can be placed before the environmental officer has verified the need for the substance and consulted the msds (material safety data sheet) in respect of food safety and environmental hazards.

A&R Carton is working to lower the number of substances used at the group's plants. All facilities must take stock of their chemical inventory on regular basis. Procurement is centralized as much as possible and the group strives to reduce the number of suppliers.

VOC emissions (tonnes)



The model pattern set by Norrköping under-lines the need for stringent routines and for spreading awareness among employees about substances and their effect on the environment and health.

RESPONSIBLE SOCIAL CITIZENSHIP



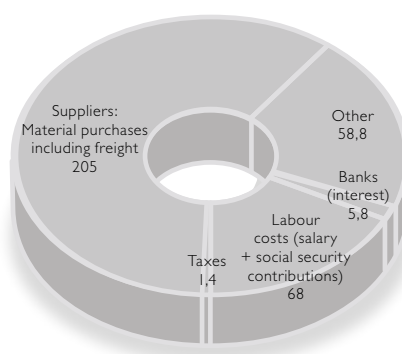
A&R Carton should be a valued, responsible social citizen which creates shared value for all stakeholders.

The main way in which value is shared with society is through the creation of jobs locally in the communities where we operate. Jobs lead to tax revenues and the development of skills among the labour force in the community.

In 2009, all blue-collar employees and a high percentage of white-collar employees were recruited locally. No other community investment initiatives are in progress at present.

“A&R Carton does not express any political or religious views and does not sponsor any such organisations, either financially or otherwise”.

Distributed economic value (€million)



Economic Performance

A&R Carton conducts its financial operations and renders accounts in a responsible, transparent and trustworthy manner. Please see page 3 of this report for an overview. For in-depth details of financial performance, including compensation and incentive packages, please refer to the A&R

Carton Annual Report. The company has received no significant financial assistance from government. A&R Carton does not see climate change as a financial risk since the raw material in carton is a renewable resource.

Non-discrimination, corruption, anti-competitive behaviour and compliance

There were no cases of discrimination, corruption, child labour or forced labour in 2009. There were no cases of corruption or anti-competitive behaviour in 2009. There has been no legal action or any fine for non-compliance in 2009.

No measures, such as training, to counteract illegal conduct have been deemed relevant or necessary for A&R Carton's employees. Individual key functions in the group have received training in competition and anti-corruption legislation.

A&R CARTON AS A WORKPLACE

Human Resources Policy

“A&R Carton should be a safe and rewarding place to work. The company is committed to equal opportunities and diversity, development of leadership skills, empowerment and safety in the workplace”.

Equal opportunities and diversity

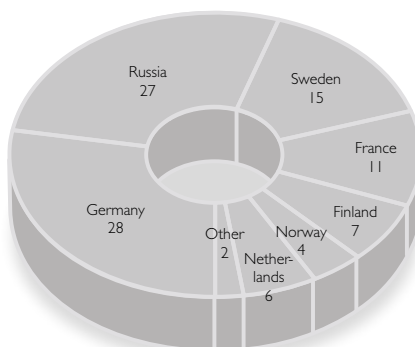
A&R Carton practices a policy of equal opportunities among employees. Employees should be treated fairly and the company should eliminate all discrimination based on gender, religion, race, age, nationality, disability, sexual orientation, political convictions, trade union membership and social or ethnic origin.

A&R Carton's strategic objectives include benefiting from the diversity existing in the organisation. A gender equality plan has been established in accordance with Swedish law. Collective bargaining agreements cover approximately 97% of the blue-collar workforce and 82% of the white-collar workforce. Besides company policy, all countries in which A&R Carton has employees have extensive laws concerning these issues.

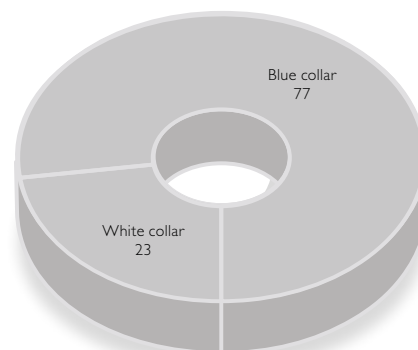
Training and development of leadership skills

The continuous development of skills and leadership qualities forms an essential part of employees' ability to contribute to A&R Carton's business objectives. A&R Carton invests in the training and development of its employees by offering training programmes. Employees received an average of 13.2

Average share of employees per country in 2009 (%)



Employment type – total workforce (%)



(12.7) hours' training in 2009. The type of training varies according to the employee's position and duties. All new blue-collar employees are given health and safety training as part of their introduction. Training and skills development programmes for blue-collar workers are usually conducted on a group basis, with relevant content for different categories of workers. Individual follow-up and appraisal is sometimes required on a supplementary basis.

The aim is to offer all employees one individual appraisal meeting per year. Approximately 56% of the white-collar workers and 42% of the blue-collar workers received an individual appraisal meeting in 2009. A&R Carton is implementing a new human resource information system in 2009, which will provide central monitoring of talent management, training programmes, individual appraisals, understanding of policies,

etc. A&R Carton is increasingly using computer based E-learning as part of training programs.

Empowerment

A&R carton promotes individual initiatives that contribute to the achievement of the company's goals. We also strive to increase the capacity and confidence of individuals or groups within the organisation when it comes to making choices and decisions.

Empowerment contributes to the company's performance by enhancing the commitment, accountability and well-being of the employees.

Safety & working conditions

A&R Carton has 14 manufacturing facilities in eight countries, all governed by national law. In addition, all countries except Russia are subject to EC law. At A&R Carton we are committed to achieving the same high safety levels at all our sites by minimising risks and limiting the impact of accidents in the workplace.

On a local basis, we constantly measure and monitor health and safety risks and implement the necessary improvements. 84 (81) cases resulting in at least one day's absence were reported in 2009.



E-LEARNING MAKES TRAINING MORE FLEXIBLE

Training on all levels is very important for a company that wants to maintain a high level of quality, innovation and motivation at work. A company that is willing to invest in its employees' future and development also becomes more attractive as an employer. The running of a production facility involves constant tweaking, modification and upgrading of machinery and equipment. To get optimal output and quality, the operators also need to be fully updated, which highlights the need for efficient training.

At the A&R Carton factory Sneek, in the Netherlands, a recently developed training programme is facilitated through E-learning. The E-learning method enhances the process of learning while saving time and resources. Currently, 52 production employees are taking part in the 2.5-year training programme. When the programme is successfully completed, the participants

will receive a diploma certified by the Dutch government.

Most of the training is carried out using a software program called the Competence Cockpit, which is complemented with teacher-led classes. All participants are equipped with laptops and can log on to the Competence Cockpit program both at home and at work. The students prepare for classes and carry out most of the training projects on their computers. The students' work is also stored within the Competence Cockpit program, which becomes a constantly updated source of information. After the training sessions, it is easy for the students to go back into the program to collect specific information about machines and processes.

The training programme's theoretical and practical modules have been developed in cooperation with a consultant agency, Van



Hidde Hietkamp, Manufacturing Manager at A&R Carton, hands out the first laptops to participating employees, Henk Postma and Anne Risselade.

Lente & De Vos Organisation Optimisation, which specialises in producing training material for manufacturing companies. The modules are specially developed for the students' working activities and are tailor-made for the A&R Carton organisation.



BENEFITS OF E-LEARNING:

- It provides flexibility regarding where and when the participants carry out their studies.
- It makes it easier for the trainers to keep the study material updated and to follow up on the students' work and progress.
- Multimedia solutions are great learning tools that complement traditional classes, enhancing the process of learning.



GRI REFERENCES

A&R Carton's sustainability report 2009 follows Global Reporting Initiative guidelines (version G3), level C. The following index shows where in the report information can be found. Only the GRI core indicators, and the additional indicators A&R Carton has selected to report on, are listed.

R= Reported
PR= Partially Reported
0= Not Reported

GRI reference	Page	Rep. level	GRI reference	Page	Rep. level
1. STRATEGY AND ANALYSIS			4.10 Processes for evaluating the Board's performance Commitment to external initiatives		
1.1 Letter from President and CEO Per Lundeen	6–7	R	4.11 The Group's handling of the precautionary approach	21–23	PR
1.2 Sustainability-related impacts, risks and opportunities	8	R	4.12 Externally developed codes, principles or other initiatives to which the Group subscribes or endorses voluntarily	8	R
2. ORGANIZATIONAL PROFILE			4.13 Membership in trade and industry organizations	11	R
2.1 Name of the organization	1	R	4.14 List of stakeholder groups engaged by the Group	10	R
2.2 Primary brands, products and/or services	3–4	R	4.15 Basis for the identification and selection of stakeholders	10	R
2.3 Operational structure of the organization	4	R	4.16 Approaches to stakeholder engagement and frequency of engagement	10	R
2.4 Location of headquarters	4	R	4.17 Key topics and concerns raised through stakeholder engagement	10, 11, 22, 25	PR
2.5 Countries where the Group operates	3–4	R	5. MANAGEMENT APPROACH AND PERFORMANCE ECONOMIC		
2.6 Nature of ownership, legal form	3	R	Disclosure on Management Approach	6	R
2.7 Markets where the group is active	3–4	R	EC1 Economic value generated and distributed	25	R
2.8 Size of the organization: number of employees, sales etc.	3–4	R	EC2 Financial implications and other risks and opportunities due to climate change	6	PR
2.9 Significant changes during the reporting period	3–4	PR	EC3 Coverage of the organization's defined benefit plan obligations	0	
2.10 Awards received during the reporting period			EC4 Significant financial assistance received from government	25	R
3. REPORT PARAMETERS			EC6 Policy, practices, and proportion of spending on locally-based suppliers	0	
3.1 Reporting period	9	R	EC7 Procedures for local hiring and proportion of senior management hired from the local community	25	PR
3.2 Date of most recent report	9	R	EC8 Development and impact of infrastructure investments and services provided primarily for public benefit	0	
3.3 Reporting cycle	2	R	ENVIRONMENTAL		
3.4 Contact persons	2	R	Disclosure on Management Approach Materials	6, 8, 12, 14	R
3.5 Process for defining report content	9–10	R	EN1 Materials used by weight or volume	12–13	R
3.6 Boundary of the report	9	R	EN2 Percentage of materials used that are recycled	13	R
3.7 Specific limitations on the scope or boundary of the report	9	R	EN3 Direct energy consumption	13	R
3.8 Reporting of entities that can affect comparability	9	R	EN4 Indirect energy consumption	13	R
3.9 Data-measurement techniques and the bases of calculation	9+	R	EN5 Energy saved due to conservation and efficiency improvements	13	PR
3.10 Explanation of any restatements of information	0		EN6 Initiatives to provide energy-efficient or renewable energy-based products	6, 12–13, 16	PR
3.11 Significant changes in the scope, boundary or measurement methods	9	R	EN7 Initiatives to reduce indirect energy consumption and reductions achieved	0	
3.12 GRI index	28–29	R	EN8 Total water withdrawal by source	13	R
3.13 Policy and practice regarding external verification	2, 9	R	EN9 Water sources significantly affected by withdrawal of water	0	
4. GOVERNANCE, COMMITMENTS AND ENGAGEMENT			EN10 Water recycled and reused	0	
4.1 Governance structure of the organization	8	R	EN11 Land at organization's disposal in areas of rich biodiversity	14	PR
4.2 Chairman's position	8	R	EN12 Impact on biodiversity	14	PR
4.3 Number of independent, nonexecutive Board members	8	R			
4.4 Mechanisms for shareholders and employees to provide recommendations or directions to the Board	0				
4.5 Remuneration to senior executives	0				
4.6 Processes for avoiding conflicts of interests in the board	0				
4.7 Process for determining the qualifications of the board members	0				
4.8 Statement of mission, values, code of conduct and principles relevant to sustainability performance	5, 8	R			
4.9 The Board's procedures for overseeing sustainability performance	8, 9	R			

GRI reference	Page Rep. level	GRI reference	Page Rep. level	GRI reference	Page Rep. level
EN16 Direct and indirect greenhouse-gas emissions	13–14 R	HR5 Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk and actions taken	26 R	SO7 Total number of legal actions for anti-competitive behavior; anti-trust and monopoly practices	25 R
EN17 Other relevant indirect greenhouse-gas emissions	12–13 PR	HR6 Operations identified as having significant risk for incidents of child labor	0	SO8 Monetary value of fines and number of sanctions for noncompliance with laws and regulations	25 R
EN18 Initiatives to reduce emissions of greenhouse gases	6, 12–13, 17 R	HR7 Operations identified as having significant risk for incidents of forced labor	0	PRODUCTS	
EN19 Emissions of ozone-depleting substances	0	SOCIETY		Disclosure on Management Approach	21 R
EN20 NO _x , SO _x and other significant air emissions	13 PR	Disclosure on Management Approach	22 R	PR1 Life-cycle stages in which health and safety impacts of products and services are assessed	13, 14, 18, 21–24 R
EN21 Total water discharge	13 R	SO1 Programs and practices that assess and manage the impacts of operations on society/communities	0	PR2 Incidents of non-compliance with regulations concerning health and safety impacts of products	21 R
EN22 Total weight of waste by type and disposal method	12 PR	SO2 Percentage and total number of business units analyzed for risks related to corruption	0	PR3 Type of product and service information required by procedures	9, 15, 21 R
EN23 Unforeseen spills	13 R	SO3 Percentage of employees trained in anticorruption policies and procedures	26 R	PR6 Programs for adherence to standards and voluntary codes concerning market communications	3, 11, 25 PR
EN26 Initiatives to mitigate environmental impacts of products	6, 12, 15, 18–20 R	SO4 Actions taken in response to incidents of corruption	25 R	PR9 Monetary value of fines for non-compliance with laws and regulations concerning products and services	25 R
EN27 Percentage of products and their packaging materials that are reclaimed	14, 16 PR	SO5 Public policy positions and participation in lobbying	25 R		
EN28 Fines and sanctions for noncompliance with environmental laws and legislation	12 R	SO6 Financial and in-kind contributions to political parties, politicians and related institutions	25 R		
EN29 Environmental impact of transports	13, PR				
EN30 Total environmental expenditures and investments	0				
LABOUR PRACTICES AND DECENT WORK					
Disclosure on Management Approach Employees	8, 3, 26 R				
LA1 Workforce	3, 26 R				
LA2 Employee turnover	0				
LA4 Proportion of employees included in collective agreements	26 R				
LA5 Minimum notice period(s) regarding significant operational changes	0				
LA7 Work-related accidents and diseases	26 R				
LA8 Action program relating to serious illnesses	26 R				
LA10 Number of hours of training per employee	26 R				
LA11 Programs for skills management and lifelong learning	26–27 R				
LA12 Percentage of employees receiving regular career development reviews	26 R				
LA13 Composition of the Board, management and employees by category (gender, age, minority group)	8 PR				
LA14 Ratio of basic salary of men to women by category	0				
HUMAN RIGHTS					
Disclosure on Management Approach	8 R				
HR1 Percentage and total number of significant investment agreements that have undergone human-rights screening	0				
HR2 Percentage of significant suppliers that have undergone screening on human rights and actions taken	0				
HR3 Employee training on policies and procedures concerning aspects of human rights	26 R				
HR4 Total number of incidents of discrimination and actions taken	26 R				



For more information please visit our website at www.ar-carton.com

A&R Carton AB (Headoffice)
Adelgatan 6
SE-211 22 Malmö
Tel +46 40 661 56 60 Fax +46 40 611 66 05
e-mail: malmo@ar-carton.com
www.ar-carton.com