



UN Global Compact

Armacell's Communication on Progress Report 2014



Welcome to Armacell

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About this report

| 1

In all areas of the business, Armacell is committed to its corporate responsibility towards its employees, the environment and the communities the company operates in. To demonstrate our company's commitment, the Armacell Group has been a supporting member of the UN Global Compact since 2006, consciously supporting this initiative with our best efforts and advising all stakeholders to respect our self-commitment.

The UN Global Compact is a strategic initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labor, environment and anti-corruption. Armacell promotes and implements the ten principles and publishes a Communication on Progress (COP) report every year.

This report covers all the policies, actions and outcomes of the Armacell Group from April 2014 to March 2015 and is a voluntary framework.



Statement of Continued Support

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“The Armacell Group has been consciously supporting this initiative with our best efforts, since joining in 2006.

Whether our high performance systems that help to conserve energy and reduce CO₂ emissions or our unique applications for oil and gas, wind energy, transportation, hospitals, schools and many other fields, Armacell products are making a difference around the world. Our primary focus is on creating innovative solutions for complex challenges and improving performance for all targeted applications. In doing so, we help to protect and improve the environment in which our products are used.



Patrick Mathieu
CEO Armacell Group

In our business, the key issue is energy efficiency. We not only market and sell products that target energy conservation worldwide. We continually optimize our elastomeric insulation products and, through effective associations, raise awareness for energy-saving potential amongst industry and governments, thus making an even more far-reaching contribution to building a sustainable future.

Our responsibility for sustainable development does not confine itself only to environmental issues. Environmental awareness is linked to occupational safety, product stewardship and corporate citizenship.

Statement of Continued Support

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The COP report 2014 shows a range of activities around the Armacell globe with regard to human rights, labor standards, environmental protection and anti-corruption.

Today, Armacell has 2,400 employees with production facilities in 15 countries on 4 continents. While we operate worldwide, taking ownership for local responsibilities is one of our core values and the basis for sustainable, profitable growth.

We clearly understand the importance of all ten fundamental principles of the Global Compact and will further strive to initiate appropriate actions to achieve a sustainable and ethical development of our business.”



Patrick Mathieu

CEO Armacell Group

Introduction to the Armacell Group

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Armacell is a world leader in flexible insulation foams for the equipment insulation market and also a leading provider of engineered foams and currently employs 2,400 people worldwide. In the year 2013 the company generated net sales of EUR 415.7 million.

With its 22 manufacturing plants in 15 countries on four continents, Armacell follows a strategy of internationalization. The company operates within two main businesses: The Advanced Insulation business develops flexible insulation foam products for the insulation of mechanical equipment. The Engineered Foams business develops and markets light foams for use in a broad range of end-markets.

The high-tech insulation products made by Armacell increase the global energy efficiency and are used in many high-end facilities, including the Empire State Building and the International Space Station. They are an integral part of everyday life: Armacell products are used not only as thermal insulation, but also as acoustic insulation, as gaskets and seals in a variety of modern car models or as central components of wind turbine blades.

Please find further information on Armacell at www.armacell.com.

Facts & Figures

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2,400

employees worldwide



22 production facilities in
15 countries on 4 continents



Central development center in
Muenster (Europe)



Regional headquarters in Mebane, NC
(USA), Singapore (Asia Pacific/India),
Muenster (Europe)



202 active patents (176 patents
received from 2010 to 2013)



Unique application-oriented product
tests, e.g. fire, thermal conductivity
and water-vapour resistance tests

UNIQUE GLOBAL POSITION

COMMERCIAL CONSTRUCTION | RESIDENTIAL CONSTRUCTION | LIGHT INDUSTRY
INDUSTRIAL ENERGY | OIL & GAS | SPORTS & LEISURE | AUTOMOTIVE | TRANSPORT | OTHER

Milestones

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1954

Revolutionary:
Introduction of
Armacell in
America and later
on in Europe

1979

Service oriented:
Start of Armaflex
training courses

1989

**Environmentally
conscious:** First
in industry to
comply with
Montreal Protocol
for CFCs

2001

Purchase of major
insulation company
in Thailand

2000

The insulation
division of
Armstrong (AIP)
became Armacell,
an independent
company

2003

Opening of second
production plant in
China

2004

Acquisition of
three foam
producers in
the USA

2006

Opening of new
major production
facility in India

2005

Innovator: first
manufacturer to
foam high-quality,
bottle-grade PET
on an industrial
scale, qualifying
PET foams for the
composite
industry

Partner: Armaflex
System Warranty

2011

**Always a step
ahead:** Our products
obtain the first
flexible insulation CE
mark for Europe

2009

Energy efficient:
140 times more
energy saved
through Armaflex
than needed for its
production

2014

Joint venture
formed in 2008
with Zamil
Industries is
now fully owned
by Armacell

2015

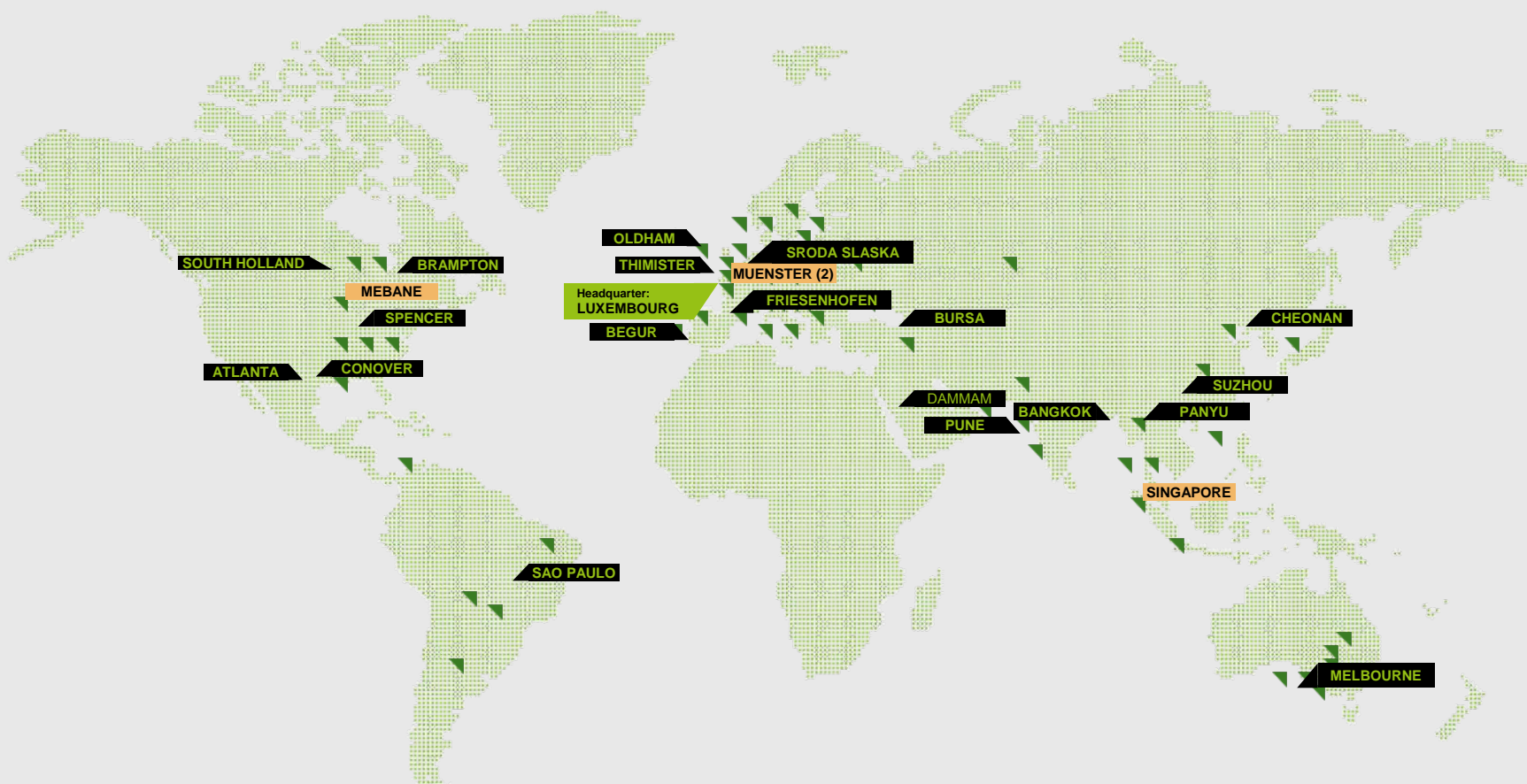
Armacell
acquires two
leading foam
manufacturers:
OneFlex in
Turkey and
ITP in Canada

Global presence

Over 320 sales and administration offices

Manufacturing facilities in 15 countries

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The 10 Principles of the UN Global Compact

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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.

Labor

Principle 3 | Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

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 respect of employment and occupation.

Environment

Principle 7 | Businesses should support a precautionary approach to environmental challenges;

Principle 8 | undertake initiatives to promote greater environmental responsibility and

Principle 9 | encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

Principle 10 | Businesses should work against corruption in all its forms, including extortion and bribery.

Principles 1 and 2 | Human Rights

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1 | Businesses should support and respect the protection of internationally proclaimed human rights;

2 | and make sure that they are not complicit in human rights abuses

Policies

- Armacell protects and respects international human rights.
- Commitment and integrity are two of the core company values.
- These values and our concept of ethically and legally responsible behavior are described in our Code of Conduct, which was renewed in September 2012 and acknowledged by all Armacell employees at the beginning of 2013. When signing their working contract, all new Armacell employees undertake to follow the Code of Conduct.
- Since 2006, we have openly supported the UN Global Compact in communications with our business partners and the general public.
- The Global Compact principles are publicly supported on our website, in speeches, in the press, in product brochures and in contact with customers and suppliers, worldwide.

Principles 1 and 2 | Human Rights

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- The endorsement of the UN Global Compact has been incorporated into our supplier assessments. Since October 2009, every new supplier has been asked to respect the ten principles of the Global Compact.
- Armacell's Global Compact commitments are incorporated into several company presentations (shown to the general public, customers, suppliers and other stakeholders).
- Bulletins and regularly updated news about the Global Compact are published on the intranet as well as in our printed employee and customer magazines.
- Global Compact contact persons, who report on related local activities, are appointed in all geographical zones.
- Armacell contributed a text to the *Global Compact Jahrbuch 2014*.
- A financial contribution to the *Stiftung Deutsches Global Compact Netzwerk* was made in January 2015.

Actions and Outcomes

- Our employees support the principles in their day-to-day business life.
- As in previous years, Armacell has not been subject to any investigations, legal cases or incidents involving human rights violations.

Principles 1 and 2 | Human Rights

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- Our employees make a difference: as a successful company with a global footprint, we see it as our responsibility to support local good citizenship projects. For example:

Muenster (Germany):

In January 2015, a donation of EUR 4,000 was made to the *Overbergschule Lingen*, an elementary school. The money was raised by the lottery at the 2014 Christmas party in Muenster.

[...] During the check presentation ceremony, Frank Schmidt, Chairman of the Friends of the Overbergschule, thanked Armacell: “We are very grateful to the employees of Armacell for their support. We aim to give our pupils the best possible opportunities to learn and develop. To achieve this, we rely on funds which cannot be provided for in the school’s budget to initiate projects for the children. With this additional money we can help to provide a healthy breakfast for all children or enable some to take part in a school trip. We can also set up playground equipment which we have wanted for a long time and maintain our online reading portal Antolin.

Every euro which the Friends receive benefits our pupils.”



Principles 1 and 2 | Human Rights

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Mebane (USA):

- Armacell LLC has a unique partnership with the HEARTS program – a non-profit organization targeting children from all over the world undergoing bone marrow transplant at Duke University Children's Hospital.
- In September 2014, Armacell employees and their families and friends participated in an annual Heart Walk. Over 20 participants walked in the event. With Armacell's assistance, over \$3000 was raised and donated to the American Heart Association.
- In Mebane, Armacell LLC partners with a non-profit community rehabilitation organization, OE Enterprises, in the fabrication of insulation covers for irregularly shaped components. The organization offers individualized services to adults with disabilities or socio-economic disadvantages. It provides vocational training and job placement, helping them to gain independence.
- Armacell employees also donated several large boxes of toys: the mission of the Toys for Tots Program run by the U.S. Marine Corps Reserve is to collect new, unwrapped toys during October, November and December each year and distribute them as Christmas gifts to less fortunate children. The primary goal of Toys for Tots is to deliver, through a new toy at Christmas, a message of hope to these youngsters.



Principles 1 and 2 | Human Rights

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France:

In July 2014, Armacell France once again participated in the campaign “Shoes on to beat the disease” (European Lucodystroph Association; ELA): every employee counted his/her steps during the working day and at the end of the day, Armacell converted all steps into money, resulting in a donation of EUR 2,000.

Pfaffnau (Switzerland):

As in the previous year, Armacell supported teenagers in the Pfaffnau bicycle club with a donation of Fr. 1,150.

Panyu (China):

Armacell organizes activities among colleagues to visit elderly people in Panyu Shilou Rest Home on Women’s Day, March 8, every year.



Principles 1 and 2 | Human Rights

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Oldham (UK):

- Sponsorship contribution of EUR 6,000 per annum paid to local council for maintenance and upkeep of the community garden and underpass close to the Armacell facilities.
- In 2014, charity activities included raising money for Dr. Kershaw's hospice charity in Royton, Oldham, including a 6-mile moonlight charity walk by Maggie Hales and Heather Whittaker and adverts in the annual diaries and guide books. Colleagues also took part in a sponsored Manchester-to-Blackpool 60-mile bike ride for Christie's Hospital in Manchester and the 5-km Race for Life fun-run for Cancer Research in Heaton Park, Manchester, where runners all wear pink. Through these activities Armacell employees raised a total of around £2,500.
- Armacell UK also donated materials for the refurbishment of a Sea Cadets building in Wallasey and for a local wildlife conservation project for the protection of badgers in Wakefield.



Principles 1 and 2 | Human Rights

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Sao Paolo (Brazil):

■ Over the past ten years, Armacell Brazil has donated thousands of balls, dolls and toys to children from the Armacell neighborhood. This has become a tradition and it is a pleasure to see some of the children growing up healthily and happily after all these years.

Navithanveli (Sri Lanka):

Ongoing involvement in World Vision programs - financial support and regular correspondence with 6 orphans/half-orphans following the Tsunami in 2005. In the past, Armacell supported ten children of whom four have now reached an age, at which they do not need further support. Thanks to Armacell's commitment and the excellent cooperation with local project workers and the inhabitants themselves, a great deal has been achieved over the past years. For example:

- Access to clean drinking water
- Construction of an elementary school
- Reduction in the number of children suffering from malnutrition
- Improved health care



Principles 1 and 2 | Human Rights

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Thailand & ASEAN:

- Employees participate in their community activities, such as Children's Day on January 10, 2015 held by the district community, tree planting activities and the Run & Ride Contests in community public parks.
- The company is aware of its responsibility to society and the community in which it operates. In Thailand, Armacell donated gifts for the Disabled People's Day activities in Ratchaburi.
- Moreover, the company supports its community traffic police and drivers at checkpoints by sponsoring food and beverages. This helps them relax from their tiring work and driving and in turn contributes to reducing traffic accidents during long holidays (New Year).



3| Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining

Policies

- Armacell respects and protects employees' rights to engage in union activity and collective bargaining.
- The ILO Core Conventions are supported by Armacell, adhering to internationally recognized principles including labor standards.
- The corporate philosophy, the A.R.M.A. Way, provides all employees with guidance for their actions.
- Armacell places great emphasis on workplace safety.

Actions and Outcomes

- Worker/employee representative bodies (e.g. works councils) are established in most of our plants.

Principle 3 | Labor

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- Regular interaction between management and employees through various communication channels.
 - For example, in Thailand a welfare committee composed of management and employee representatives meets six times a year.
 - In India an engagement committee has been established. This is a cross-functional committee consisting of 11 members who are responsible for different activities during the year. The objective of the committee is to work towards establishing an emotional connection between Armacell India and its employees.
 - As a pilot group, the Armacell GmbH in Germany introduced a Round Table in November 2014. The CEO of the Armacell group meets with approx. ten employees (plant as well as administration) in a relaxed atmosphere to discuss current topics and listen to the employees. This communication tool is to be rolled out globally, starting with the first locations in 2015.
- Additional safety regulations are in place worldwide.

Principle 3 | Labor

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- **The A.R.M.A. Way:** Constant communication of this corporate philosophy, which was implemented in September 2012.
- In order to communicate the contents, all Armacell managers worldwide received the presentation **From Vision to Action** to help them explain the A.R.M.A. Way to their employees.



Principle 3 | Labor

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■ **Armacell Awards System:** Armacell recognizes that rewarding employee accomplishments plays a vital role in improving the relationship employees have with each other and the organization. The focus of the Armacell Awards System is on rewarding performance through recognition opportunities to enhance productivity and build loyalty. The Armacell Awards (A.R.M.A. Way Awards and Armacell Achievement Awards) are designed for all employees worldwide and lay the foundation for an engaged working culture throughout the whole Armacell family.

A.R.M.A. Way Award

(cash award for furthering project activities)

- Supporting our philosophy of managing our activities as an organization in the A.R.M.A. Way
- Annual team award
- Rewards outstanding performance in the four main areas of focus:
 - ✓ Appreciate our customers
 - ✓ Raise our efficiency
 - ✓ Manage our cash
 - ✓ Act to empower our employees

Armacell Achievement Awards

(cash awards to individuals based on local compensation structure)

Initiative Award

Recognizes an individual or team accomplishment directly related to job or department responsibility

Leadership Award

Granted to an individual that demonstrates exceptional leadership and initiates an outstanding achievement or contribution for their work group, area or business

Global President's Award

Highest level of recognition provided by the company to an individual or a team that has achieved an extraordinary accomplishment or unique contribution to the overall vision and mission

Principle 3 | Labor

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- From 2011 to 2013, Armacell introduced the **Systematic Personnel Development Process** with regular appraisal interviews (APDR) worldwide. In 2012, the system was rolled out step by step for all salaried employees worldwide. The process aims to identify personal development needs and training requirements and define objectives for all participants in a standardized way and related to the A.R.M.A. Way philosophy. It gives managers and employees the opportunity to provide mutual feedback on the working relationship and engage in a development dialogue. Armacell offers regular training sessions for employees and supervisors to help them prepare professionally for the review meeting.
 - In 2014, Armacell in the USA introduced a paperless process for the APDR using an HR information system. This procedure will be rolled out globally from 2015 onwards.
- In 2012, the annual **People Review Conference** was carried out at the headquarters in Muenster for the first time. In 2014, it was rolled out in all three geographical areas (EMEA, Americas, APAC).
 - This conference takes place once a year and is carried out top-down to the third level.
 - Every manager presents the assessment and succession planning for his key employees to the group.

- With the aim of creating an engaged working culture, Armacell conducted a **Worldwide Employee Survey** for the first time in 2012 in EMEA and APAC. In 2014, the survey was conducted in all Armacell locations worldwide.
 - 82 % of employees participated in this survey.
 - After the publication of the results, various working groups were established.
 - These working groups, consisting of employees from various departments, the managers of the divisions and representatives of the works council and human resources development, drew up concrete action plans on the basis of the results.
 - The status / outcome of the working groups are published regularly, for example in bulletins and the employee magazine.

Examples of measures which have been developed based on the three focused dimensions resulting from the employee survey are:

Respect and Recognition

- Collaboration with the *PME-Familienservice* in Muenster and Friesenhofen allowing professional, family and private life to be combined successfully.
- Partnering with the gym *Fitness First* in Muenster in order to promote employees' physical fitness and health.
- Planned Open Day 2015 at the plant in Muenster for employees and their relatives.

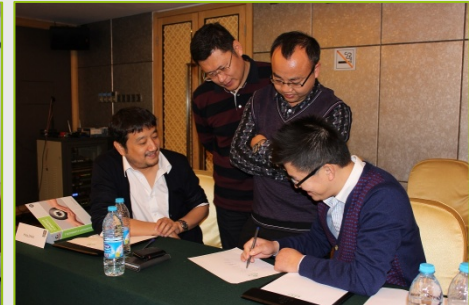
Performance Management

- Introduction of a plant bonus at the Muenster site and modification of the plant bonus in Friesenhofen. One component of the bonus is now the individual agreement of objectives, which is part of the Annual Performance and Development Review.
- Speeding up and creating greater transparency for the employee suggestion system in Muenster.

Confidence in Leaders

- Leadership@Armacell, the internal qualification program for all leaders, was rolled out worldwide in 2013 and since then has been a continuous training tool for all leaders. The purpose of this program is to achieve a consistent understanding of leadership. It is to be ensured that every leader – whether senior, middle or first line – is familiar with the Armacell foundations, the management routines and management tools. In 2015, an addition day has been added to the program focusing on the topic “Engaging Leadership”.

The leaders' mission is to develop a stimulating work environment where every employee succeeds in performing to the best of his/her abilities.



Principle 3 | Labor

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- In 2013, Armacell launched the **Orientation Program** for its new employees in Muenster to provide them with an overall view of the company.
 - This program is held in a group on 1.5 days. Elements include a company presentation and an introduction to the main departments of the company.
 - In addition, all new employees take part in a plant tour and an Armacell product training session.
 - This orientation program facilitates new employees' start at Armacell, ensures a better understanding of all processes and helps them to develop their new function within the company. It also enables the employees to build up their personal network.
 - In 2014, further locations worldwide started implementing the Orientation Program. In the USA, for example, the program is being standardized within the HR information system, which it is planned to use worldwide.

4| Businesses should uphold the elimination of all forms of forced and compulsory labor

5| Businesses should uphold the effective abolition of child labor

Policies

- Armacell supports the ILO Core Conventions. It firmly dissociates itself from and will not do business with any organization which uses forced or child labor.

Actions and Outcomes

- Since the beginning of 2007, Armacell has initiated and rolled out a project covering its suppliers worldwide, informing them about our support of the UN Global Compact's ten fundamental principles.
 - In 2015, Armacell will be going even one step further by requiring its suppliers to sign documents confirming that they comply with the principles that call for eliminating all forms of forced and compulsory labor and abolishing child labor. The signature of the Armacell Supplier Code of Conduct will be part of the evaluation process organized by the Corporate Purchasing Department every two years.
- All employees are issued with a contract of employment which clearly states their terms and conditions including pay rates and overtime pay arrangements.

6| Businesses should uphold the elimination of discrimination in respect of employment and occupation

Policies

- Principle 6 is expressly included in Armacell's Code of Conduct.
- A range of HR Policies support best practice in terms of labor and employment including our equal opportunities policy, appraisal procedure and flexible working policy:
 - Flexible working hours are offered where possible to facilitate work-life balance (see also actions and outcomes of Principle 3, under Respect and Recognition / page 22)
 - Continuous endeavors to respect and promote the principle of non-discrimination on all levels by our Human Resources Departments worldwide.
- Strict safety policy in place that is subject to continuous improvement.

Actions and Outcomes

Only qualifications, skills and experience form the basis for recruitment, placement, training and advancement of staff at all levels.

Germany:

- At the headquarters in Muenster, Armacell pays for English language courses on different levels for all employees: 37 participants in 2013/2014, 55 participants in 2014/2015.
- A comprehensive training catalogue is published once a year by Human Resources offering employees basic courses on subjects such as Excel, presenting in English, communication, time management, etc.

Spain:

- Language classes in Portuguese, English, French and German
- Excel and Indesign courses
- Courses on personal skills
- Training in health and safety
- Technical sales workshop

India:

Getting suitable "off-the-rack" talent from the market is becoming very difficult, costly and time-consuming and the talent available directly from universities is also not directly utilizable. The “**Graduate Engineer Trainees (GET) project** for people cost reduction and increased bench strength” is a different approach:

- The Armacell India team has taken on eight fresh graduate engineer trainees from different engineering institutes across India. During their first year at Armacell, these trainees are being trained in five phases in different functions: Manufacturing, Technical & Application Support, Product Development & Marketing, and Sales. The final, fifth phase will be a live project. After appropriate assessment, they may be placed in a suitable role if vacancies are available. This process will be repeated every year.
- While the GETs gain experience while being paid for it and have a good chance of finding their dream job at Armacell, Armacell India saves substantially on recruitment costs for hiring people from outside and avoids the time lag between a vacancy occurring and a suitable employee joining the company.
- This facilitates internal recruitment at junior and middle level for current and future needs. A further advantage is that GETs are familiar with our company culture from the beginning.



A real win-win situation which makes the GETs project the A.R.M.A. Way Award winner in the category: Act To Empower Our Employees.

Armacell places great emphasis on education and training:

- In and around **Muenster (Germany)**: Organizing and sponsoring discussions, workshops and seminars for pupils and students, informing them about measures to reduce energy consumption.
- 30 internships for pupils in 2014.
- As in previous years, regular events especially for pupils, such as:
 - ✓ Plant tours for young people: six visits in 2014; schools, organizations:
 - *Fürstin-von-Gallitzin-Realschule*
 - *Amt für Schule und Weiterbildung*
 - *Jugendausbildungszentrum JAZ - Münster*
 - *Hans-Böckler-Berufskolleg*
 - *Martin-Luther-King-Schule*
 - *Karl-Wagenfeld-Realschule*
 - ✓ Careers forum at *Hauptschule Hilstrup*: Information stand on apprenticeship programs available at Armacell as part of a project to form partnerships between schools and companies (*Partnerschaft "Schule-Betrieb"*)
 - ✓ Careers day (*Aktionstag Schule und dann?*): Armacell invited pupils in grades 9 to 11 from various schools to take part in an exciting day at the company. In the afternoon the young people had the opportunity to gain hands-on experience in the apprenticeship workshop, experience interesting experiments in the lab and gain an insight into various industrial and technical occupations requiring an apprenticeship.

Principle 6 | Labor

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- Girls Day: On March 27, 2014, girls were able to learn more about the occupations of process mechanic or IT specialist for system integration. On a tour of the factory, by working in the production, assembling tools in our own apprenticeship workshop or experiencing the world of technology, young girls could take a look behind the scenes of a large company and experience the world of work at first hand.
- Apprentice Speed-Dating: under the slogan “10 minutes to an apprenticeship program” students had the chance to introduce themselves directly to Armacell at this event organized by the local chamber of commerce. We had numerous interesting 10-minute conversations.
- Recruiting fairs:
 - LEBK
 - Berufsbörse Münster
 - Berufsbörse
 - Messe Wolbeck
 - Coembo
- Company rally (*Betriebsrallye 2014*): In the course of the company rally students do short 2-day internships at various companies.
- Application training with students at the *Hauptschule Hilstrup* as part of the project *Partnerschaft "Schule-Betrieb"*



- Commitment to providing a **safe work environment**:
 - Health and safety committees are appointed in all plants. Top management places great emphasis on safety.
 - Regular briefings in safety at work for all employees; in many regular meetings safety is one of the first discussion points.

Some examples of ongoing initiatives:

- Armacell LLC Achieves Gold Level Theodore H. Brodie Distinguished Safety Award in the Associates (Manufacturers) Category. The Theodore H. Brodie Distinguished Safety Award is NIA's highest industry honor and the only national award for outstanding safety performance in the mechanical insulation industry. NIA created the award program in 2004 to recognize top companies that have established structured safety programs to ensure the well-being of their employees and create safe working environments. The award program honors 4 levels of excellence: Bronze, Silver, Gold and Platinum. Armacell's two insulation manufacturing facilities in Mebane, NC and Atlanta, GA (Dallas) achieved Gold level recognition.
- Armacell Friesenhofen celebrated two years without an accident: The team of around 110 employees set a new personal record – two years without an accident. This good work safety record was achieved through the consistent use of root cause analyses when filling in the first-aid book and in the case of near misses. In addition, a system for reporting unsafe condition and behaviors and near misses was introduced last year.
- The 42nd National Safety Week was celebrated at Armacell India in March 2014. Various activities were conducted during this week including a safety pledge taken by all the employees on the first day of the week. A one-day in-house training program on "Safety Culture" was conducted for all the shopfloor employees. Safety poster and safety slogan competitions were organized and many entries were received. Winners were awarded attractive prizes on the final day of the safety week.
- In Muenster (Germany) safety representatives are instructed on a regular basis by the professional organization for the industry (*Berufsgenossenschaft Rohstoffe und chemische Industrie*)

Principle 6 | Labor

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- In 2012, the **World-class Armacell Mindset (WAM)** was launched. WAM is a continuous improvement program based on the Toyota manufacturing philosophy and methods (Kaizen, 5S, SMED, TPM etc.).
- Armacell started with four pilot plants in 2013: Muenster (Germany), Sroda Slaska (Poland), Oldham (UK) and Panyu (China). Three further plants followed in 2014: Mebane (USA), Pune (India) and Friesenhofen (Germany).
 - All employees at these plants were invited to kick-off meetings to gain preliminary insights into what WAM is and how it might effect their daily work.
 - In the first major WAM Audit, the project teams in Muenster (Germany) presented their progress in the various areas to the Management in 2014. Employees are at the very center of WAM. Only when every individual employee contributes his skills and everyone pulls together is it possible to get things moving and change processes. Further audits will follow in 2015.



7| Businesses should support a precautionary approach to environmental challenges

Policies

- Environmental protection is an integral part of Armacell's business strategy.
- Environmental guidelines are in place in all our companies and manufacturing plants: all Armacell employees worldwide are obliged to behave responsibly towards the environment and conserve natural resources on and off the job.
- Armacell commits itself to manufacturing products which pose no threat to the environment.

Actions and Outcomes

- 21 out of 22 plants worldwide are ISO 9001 certified, 1 plant is TS16949 registered.
- A global Environmental Assessment for 20 manufacturing sites has been organized in 2013.
 - Auditing of the largest plants and new facilities; telephone interviews, checklists etc. at all other plants, leading to site reports (see following page).

Independent environmental assessment

- Armacell carried out environmental assessments at all its sites throughout the world. The environmentally relevant areas Armacell plants were audited.
- Armacell was supported in this complex undertaking by ERM (Environmental Resources Management), one of the world's leading sustainability consultancies.
- The audits covered all environmentally relevant topics and examined whether the individual sites comply with the legal requirements.
- Areas addressed included environmental management, permits, air emissions, water supply and waste water, hazardous material storage and handling, waste management, restricted substances, environmental nuisances, housekeeping, explosion protection provisions and soil and groundwater conditions at the sites.
- ERM confirmed that there are no material environmental issues at any of the Armacell plants. Further improvements recommended by the consultants have either already been implemented or will be realized in the medium term.

Pune (India)

- All non-organized discharge waste air is collected.
- A further water wash tower and activated carbon filters continuously reduce waste air odor levels in order to meet local standards.
- All hazardous waste is collected and transferred to a qualified contractor for disposal.

Germany

- In 2013, Armacell needed almost 20 gigawatt hours of gas and over 12 gigawatt hours of electricity at the Muenster site alone. This is equivalent to the electricity requirements of a town with 2,000 households. To record all energy-relevant data systematically, Armacell introduced an energy management system which is part of the integrated management system alongside and on an equal footing with quality and environmental management. It obliges all employees to conserve energy. It is based on DIN EN ISO 50001. In October 2014, the energy management systems in Muenster and Friesenhofen were audited by the independent certification company Bureau Veritas and certified. By 2020, the energy requirement at the German sites is to be reduced by 5 % (compared to 2013).

Principle 7 | Environment

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Muenster: Various measures to improve energy efficiency:

- ✓ Renewing the air compressors
- ✓ Reducing cleaning of the silos
- ✓ Replacing the glazing with a better window energy rating
- ✓ Replacing the energy-intensive hall lighting in the warehouse area

Friesenhofen:

- An employee suggestions scheme was promoted; employees made suggestions regarding environmental issues and these were implemented (e.g. reducing oil consumption, reducing dangerous waste, various energy savings)

Thailand:

- Armacell Thailand joined the Energy Saving Project scheme run by the Thailand Ministry of Energy. This scheme involves an annual audit of the site by certified bodies.
- All production waste is managed and handled by a certified industrial waste management company.

Oldham (UK)

- Printed materials are only sourced from sustainable suppliers within 15 miles of the plant to reduce the carbon footprint.

8| Businesses should undertake initiatives to promote greater environmental responsibility

Policies

- Preserving and enhancing the quality of the environment around us is an integral part of the Armacell business strategy, explicitly stated in our Environmental Guidelines <http://corporate.armacell.com/en/our-story/sustainability/> and in our Code of Conduct <http://corporate.armacell.com/en/our-story/values/>

Actions and Outcomes

- Armacell actively supports appropriate associations to increase insulation standards for energy efficiency.
- Armacell has been providing CE-certified products since 2011 and was the first manufacturer of flexible pipe insulation to do so.
- The company is a member of and plays an active role in the US Green Building Council, EuroACE (European Alliance of Companies for Energy Efficiency) and numerous other national organizations targeting renewable and green energy industries worldwide.

For example, Armacell's involvement in associations in Europe North:

- CEFEP - European Interest Group of FEF and PEF manufacturers: In 2014 Armacell ensured that the further development of our product standards was carried out appropriately. In future, product standards will contain sections concerning the designation and reduction of critical substances. In a next step, the focus will be on the sustainability of our products (Environmental Product Declarations - EPDs).
- Standardization work (on a national level on DIN committees; on a European level in CEN working groups)
- Strong involvement on the board of the GSH (European quality assurance association for thermal insulating products). Here we are primarily concerned with fair conditions in the market for all those involved. This includes appropriate control and monitoring mechanisms (market surveillance). We are currently the chair of the GSH.
- Armacell is a founding member of the European Industrial Insulation Foundation (EiiF). The aim is to raise awareness of energy-saving potential which can be realized through the optimal use of insulation, especially amongst industry and governments.
- In 2015, Armacell re-joined the European Alliance of Companies for Energy Efficiency (EuroACE). EuroACE works together with the official institutions to help Europe move towards an efficient use of energy in buildings, thereby contributing to the EU's commitments on carbon emissions reductions, job creation and energy security.

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Oldham (UK):

- Rigorous audit process to check that the company meets the Building Confidence scheme's requirements in a number of key areas, including: product integrity, health and safety, environment and sustainability, ethics and values.
- Practical **training activities and seminars** on the professional installation of elastomeric insulation materials provided in many different locations worldwide; special emphasis laid on environmental aspects and on the correct installation of the flexible insulation material to ensure that no energy losses occur.
- In the training center at the company's headquarters in Muenster (Germany) and on site, 123 seminars were held in 2014 for insulation contractors, specifiers, engineers, installers, trainees, construction supervisors, etc. In total 1173 persons were trained in the EMEA region.
- In APAC a new training center was opened in 2014, training activities have started and will be broadened in future.



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■ Europe North:

For 2015, various projects for 2015 are underway to improve the training process. For example:

- ✓ Introducing a special Armaflex tool case which contains all the tools and auxiliaries needed to install Armaflex tube and sheet material, quickly and, above all, professionally.
- ✓ Filming two additional application videos (as an annual supplement to the 24 video clips already filmed in 2014) and uploading these to the Internet for customers and installers.
- ✓ Launching an Armaflex training passport for participants in our training sessions to intensify the customer retention impact of training and certification.



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■ Armacell France:

- ✓ Armacell France improved installers' technical skills by organizing the ArmaSchool and further technical training courses. Armacell representatives held around 25 training sessions on building sites for around 10 installers every time.
- ✓ Furthermore, Armacell France fosters the development of technical skills for young installers by sponsoring the Euroskills initiative in Lilles. A European competition for young people under 25, EuroSkills focuses on the performance of hundreds of European talents, selected after competitions in their own country. We were asked to support the Refrigeration and Air-Conditioning contest in the Construction and Building Technology category.



9| Businesses should encourage the development and diffusion of environmentally friendly technologies

Policies

- Armacell implemented a worldwide R&D strategy based on the principles of sustainability and environmental protection with specific research aims, including constant further development of product formulations that pose no threat to the environment.

Actions and Outcomes

- Following the development of formulations for the worldwide substitution of the widespread brominated flame-retardant agent decabrom-diphenylether (deca-BDE), which has been under discussion in recent years due to its negative environmental impact, deca was substituted four years ago already.
- Developing elastomeric foams with excellent fire behavior but without brominated flame retardants and antimony trioxide which are suspected of being potentially carcinogenic for humans. In 2014 additional formulations without MCCPs (as a plasticizer) have been developed.
- Substitution of phosphor-based plasticizers, which is known to be harmful to the environment.

Zero waste generation products for high-quality noise control:

- Product developments such as ArmaSound with the effect of zero waste generation: trim material that cannot be re-worked back into the process may be re-engineered into a high-performance acoustic foam, resulting in a win-win scenario for the environment and our customers.
 - ✓ Re-using waste materials reduces the impact of disposal, while at the same time offering a solution for noise pollution.
 - ✓ Acoustic insulation is an important attribute of living comfort today.
 - ✓ Effective acoustic insulation measures such as Armacell's noise control products minimize noise at the source, increasing both the living comfort and the value of the property.
- In recent years, Armacell Thimister (Belgium) has worked actively to replace virgin PET with post-consumer materials. Through research, screening and testing Armacell is now able to control the polymer characterization during granulation. This information is then used to predict the behavior in production. This granulation project received a 15 % grant from the Wallon region as it fully met the criteria for environmental projects defined by the European Commission. The project was also recognized internally with the runner-up prize in the "Raise our efficiency" category of the A.R.M.A. Way Award.

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Further recycling initiatives in the regions, e.g. :

- **Friesenhofen (Germany):**
 - 100% of the PVC waste is recycled and re-used.
 - 100% of the metal scrap is recycled.
- **Panyu (China):**
 - Energy savings on chilled water lines.
 - Mixer seal oil is recycled.
 - 80% of waste is recycled to produce other products.

Life Cycle Assessment (LCA):

- Continuous research on Life Cycle Assessment (LCA) was first conducted in 2009 for Armaflex, the main elastomeric insulation product, based on the ISO 14040 methodology. The aim was to investigate systematically its environmental impact, relying on data from all Armacell production facilities and markets worldwide.
 - ✓ Energy balance: assuming an average service life of 20 years, 140 times more energy is saved through the use of Armaflex than is needed for its production, transport and disposal.
 - ✓ The carbon / climate footprint of the product: 150 times more CO₂ emissions are prevented over an average lifetime of 20 years than are emitted during production.
 - ✓ In heating applications, where a service life of 30 years can be assumed, the eco-balance is even better: 270 times more energy is saved and 500 times more greenhouse gas emissions are prevented compared to production requirements.
 - ✓ The pay-back time for energy input needed to produce Armaflex is just 50 days.
- In 2014, we were one of the first companies in the FEF market to begin a major LCA / EPD project to investigate numerous environmental aspects of our FEF products. When this is completed in the middle of 2015 we will have information about the raw materials used and the impact of these substances and our products on the environment. Here the aspect of energy saving is of key importance. With this step Armacell is being very transparent towards its customers. With the EPDs the specifier will be able to recognize the environmental impact of our products in future.

10| Businesses should work against corruption in all its forms, including extortion and bribery

Policies

- A specific Armacell Code of Conduct was adapted to the corporate values of Armacell and published in September 2012.
- Explicit statement to emphasize Principle 10 of the UN Global Compact based on our five company values: customer experience, commitment, empowerment and accountability, sustainability, and integrity.
- The Code of Conduct describes how our values are implemented in practice. It defines the rules for our daily work, both internally and externally.
- The value Integrity forms the major part of the Code of Conduct.
- Our managers are expected to lead by example, to drive a culture as set out by our values and Code of Conduct.

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Actions and Outcomes

- When introducing the Armacell **Code of Conduct**, our CEO wrote a Bulletin published on our intranet and also sent to all our locations to be printed out and displayed on all notice boards.
- Posters (Our Values and A.R.M.A. Way) referring to the Code of Conduct hang in all Armacell premises worldwide.
- The Code of Conduct was translated into the languages of all the countries where Armacell has a plant and a letter of acknowledgment had to be signed by every employee worldwide by the end of the year 2013.
- A brochure was prepared which is presented to new employees at all locations worldwide when they join the company. Every new employee is asked to commit to the Code of Contact when signing his/her working contract.
- In 2013, Armacell's Corporate Legal Department, with the support of external lawyers, organized three **training events on compliance**.
- Beginning of 2015, Armacell's Corporate Legal Department, with the support of external lawyers, organised trainings on EU Competition Law Compliance. The trainings have been hold in the region EMEA for Sales Representatives, Purchase Managers as well as defined Marketing positions.
- Further trainings on the topic: EU Anti-Trust are planned for the second quarter of 2015



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