



MAKING A **DIFFERENCE**  
AROUND THE **WORLD.**

ANNUAL REPORT 2015



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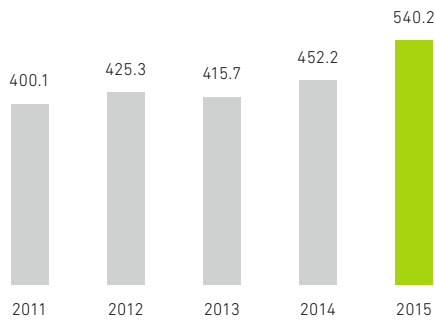
## KEY FACTS AND FIGURES

Armacell is an undisputed leader with sustainable, competitive advantages in flexible foams for the equipment insulation market. Its diversification across products, end markets, and regions combines growth and resilience. Based on an asset-light and value-added business model, Armacell is highly profitable and generates strong cash flows.

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### NET SALES

in EUR million



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### NET SALES BY REGION



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### NET SALES BY BUSINESS DIVISION



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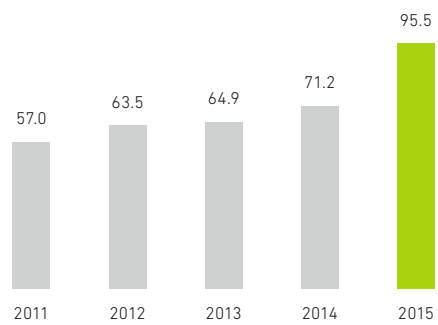
### ADVANCED INSULATION NET SALES BY REGION



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### ADJUSTED EBITDA

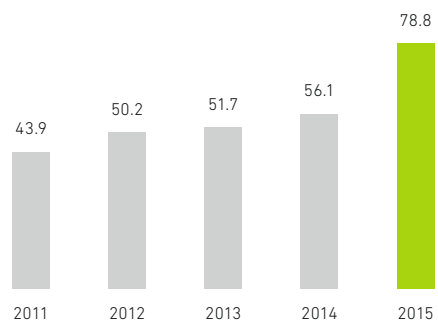
in EUR million



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### ADJUSTED EBITA

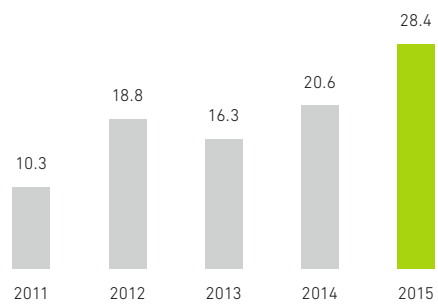
in EUR million



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### CAPEX\*

in EUR million



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\* including software and capitalized development expenses

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## LETTER FROM THE CEO



### *Dear friends of the Company*

Armacell is a world leader in flexible foams for the equipment insulation market and a leading provider of engineered foams. We promote energy efficiency every day and operate two divisions.

**Advanced Insulation** provides flexible foam insulation solutions to insulate technical equipment utilized for the transport of energy. Typical applications include HVAC (heating, ventilation and air conditioning), heating and plumbing, refrigeration, oil & gas. Such equipment is commonly used in commercial & residential construction as well as transportation or energy production.

**Engineered Foams** produces custom-made high-performance foams used across a broad range of end-markets including windmills, automotive, transportation and sports.

Our insulation products are a key element to increase energy efficiency when energy is transported using cold or hot gas or fluids. They prevent energy losses and reduce CO<sub>2</sub> production.

#### SUCCESSFUL YEAR 2015

2015 was a successful year for Armacell despite a deflated growth environment. The slow-down in global economic growth from 3.4% in 2014 to approximately 3.1% in 2015 was driven by declining growth rates in emerging markets and developing economies and was paired with a rather modest recovery in the advanced economies.

In this environment Armacell considerably outperformed market growth. Total revenues increased by 19.5% to a record level of

EUR 540.2 million in 2015 (2014: EUR 452.2 million). At the same time our adjusted EBITDA rose by 34.1% from EUR 71.2 million in 2014 to EUR 95.5 million.

Revenues in the Advanced Insulation business division grew by 15.9% over the previous year to EUR 412.5 million. This was driven by strong organic and inorganic growth across all regions, especially in the Americas. Advanced Insulation contributed 77% to group revenues.

In 2015, revenues in the Engineered Foams business division increased by 31.5% to EUR 124.4 million. Drivers were strong organic growth of the US component foams as well as the global PET business. Engineered Foams contributed 23% to group revenues.

#### CONTINUED INTERNATIONAL EXPANSION

A significant part of our sales growth was supported by two acquisitions in early 2015.

The purchase of OneFlex in January 2015, at the time the #3 Turkish insulation materials manufacturer, significantly strengthened our market position in Turkey and expanded our geographic footprint to other countries across the regions of the Middle East, Africa and Southeastern Europe.

Our acquisition of ITP (Industrial Thermo Polymers Limited) in March 2015 in Canada, a leading manufacturer of extruded PE (polyethylene) foam products in North America, significantly enhanced our market position in North America and positioned us as a leading manufacturer of PE insulation foam on the continent.

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The first full year impact of AMEC (formerly known as our Saudi joint venture AZMEC) which was acquired and consolidated in June 2014 also contributed to our inorganic growth.

Our latest brown field expansion project was the launch of an own production plant in Lobnya in the North of Moscow. Operations started on a test basis at the end of 2015 and the locally produced solutions are now serving major distributors and general construction companies as well as their installers in the Russian Federation, Kazakhstan, Belorussia and Azerbaijan. The additional production capacity positions Armacell well to accelerate its growth in the vast Russian market.

Armacell's acquisition activity across continents in conjunction with the fact that we are today operating 23 manufacturing sites in 16 countries highlights that we are a truly global company with an exceptional understanding of the local market that we serve.

#### RESILIENT END MARKETS DRIVEN BY GLOBAL MEGATRENDS

Armacell is well positioned to benefit from global megatrends and from equipment insulation market growth. Our balanced exposure to a wide range of end-markets and applications, our global presence, the strength of our pipeline of innovation as well as the safe guarding of our good reputation are key success factors of our business model.

The flexible foams segment of the equipment insulation market has proven resilient to cyclical fluctuations and overall robust in an increasingly volatile macroeconomic environment. This is mainly due to four megatrends including energy efficiency, urbanization, food supply globalization and acoustic comfort which strongly drive industry market growth.

A steadily increasing global environmental awareness, stricter energy-saving regulations and volatile energy prices offer long-term potential for our business. Man-made fixed structures are the single largest factor in energy consumption in the world. The energy used to heat, cool and light such structures accounts for more than 40% of all CO<sub>2</sub> emissions. Up to 25% of this energy could be saved by insulating accessible heating and hot-water pipes in dated buildings. On average and during the period of one year of installation our insulation products save seven times the energy used during their production and eight times the greenhouse gas emitted during their production. Our global end markets continue to grow primarily due to the increasing level substitution of legacy insulation material. Armacell's products contribute to lengthen the lifetime of installations that they insulate and protect them and hence offer a sustainable added value to clients and stakeholders alike.

#### INNOVATION AND NEW MARKETS

We continuously invest in the development of safe and innovative thermal and acoustic insulation operating one global research and development center and four regional product development centers. Since its introduction in 1954, our brand "Armaflex" is the world's leading brand and synonym for flexible insulation. Over the past years, we have successfully entered new fields of business including thermoplastic

insulation material, cladding systems and accessories, fire protection and acoustic solutions. At the same time, we have entered new markets such as the oil and gas industry – a key growth market for our company.

#### EXCELLENT PEOPLE

Dedicated and professional employees are Armacell's greatest asset. We owe our success to our highly engaged people worldwide. We provide them with an inspiring and rewarding working environment and we commit ourselves to promoting their talents by offering various opportunities for further education. We help them to make a difference in their local community by supporting numerous development initiatives.

#### CORPORATE RESPONSIBILITY

Environmental protection and a better use of resources is one of the main pillars of Armacell's corporate philosophy. It is an integral part of our business strategy and ranks equally with other strategic company objectives. In 2015, we were the first manufacturer of flexible technical insulation materials to present environmental product declarations (EPDs) which are based on an independent life cycle assessment (LCA). We are members of renowned initiatives and organizations such as the UN Global Compact, the European Industrial Insulation Foundation (EiiF), the European Alliance for companies for energy efficiency in buildings (EuroACE) and several others to drive relevant sustainability topics forward with joint forces.

As a company with a global footprint, we see it as our responsibility to regularly support good-citizenship projects in local communities in which we operate.

On behalf of the Executive Management Team and Management Board, I express my gratitude to all Armacell employees worldwide for their daily engagement and commitment as well as for their continuous contribution to the success of our company. Furthermore, I would like to extend a special thank you to our Supervisory Board Members for their valuable support. My gratitude also extends to our global customers for the confidence in Armacell.

In 2016, we will continue to focus on expanding our market position, globally marketing our pioneering technologies and consistently delivering on our international growth strategy. As an undisputed global leader in our industry, we can truly make a difference around the world.

Sincerely,

Patrick Mathieu  
**President & CEO Armacell Group**

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## EXECUTIVE MANAGEMENT TEAM

Armacell's Executive Management Team consists of 10 international managers who have extensive experience working in the industry. They focus on their responsibility towards our approx. 2,800 employees, our global customers and all relevant stakeholders. Our leaders create a culture of innovation, engagement, and accountability by reflecting Armacell's core values and Code of Conduct. They have positioned Armacell for substantial growth.



**Patrick Mathieu**  
President &  
Chief Executive Officer

CEO Patrick Mathieu joined Armacell on May 7, 2012. He has over 25 years of experience, including 15 years in the building and insulation materials sectors. Previously, he was President of Western Europe and International Flooring Division of the Tarkett Group. He also held various positions at the Saint Gobain Group, including General Director for Gypsum (Gyproc), Insulation (Isover), and Mortars (Weber & Broutin).



**Dr. Max Padberg**  
Chief Financial Officer

Dr. Max Padberg joined Armacell as Chief Financial Officer on July 1, 2015. He is responsible for Group Finance, Corporate Controlling, Accounting, Tax and IT. Dr. Max Padberg has over 20 years of management experience and assumed wide-ranging responsibilities. His previous positions include CFO of RÜTGERS Group, CFO at Versatel AG, SVP Finance with worldwide responsibility for LSG Sky Chefs and several management positions with Mannesmann in Germany and in the USA.



**Jan Bir**  
Chief Legal &  
Compliance Officer

Jan Bir joined Armacell as General Counsel in August 2014. Before, he has worked in private practice, focussing on Corporate/M&A.



**Roberto Mengoli**  
Chief  
Technology Officer

Roberto Mengoli has been Armacell's Chief Technology Officer since January 15, 2013. He is in charge of global technology as well as operations policies and programs. He has over 18 years of experience, primarily in operations and promoting and developing manufacturing and lean programs. He gained previous experience in manufacturing at companies such as the Saint-Gobain Group, Elica, and SACMI Group.



**Keith A. Norwood**  
Chief Human  
Resources Officer

Keith A. Norwood has been Armacell's Chief Human Resources Officer since 2013 and is based in Chapel Hill, North Carolina, USA. Prior to accepting his current position, he was in charge of Human Resources and Information Technology for Armacell's Americas region. He has over 25 years of leadership experience in HRM at companies such as Armstrong World Industries and National Spinning Co. Inc. He also has extensive experience in organizational development, public relations, and mass communications.

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**Dr. Karl Paetz-Lauter**  
Vice President  
Research & Innovation

Dr. Karl Paetz-Lauter joined Armstrong in 1987. He has more than 30 years of professional experience – most of it in managerial functions in the insulation business of Armstrong/ Armacell. Before joining Armstrong he was Vice President of the Institute for Research in Medical Education, which was founded by the German Ministry of Research and the Federal Committee for Educational Planning.



**Norman Rafael**  
Vice President  
Corporate Development &  
Investor Relations

Norman R. Rafael has been Vice President Corporate Development & Investor Relations at Armacell since July 2015. He joined Armacell on September 1, 2014 and has more than 18 years of professional experience. Previously, Norman held senior positions within investment banking and capital markets at UBS, Credit Suisse and a German private bank.



**Thomas W. Himmel**  
Vice President  
Americas &  
Engineered Foams

Thomas W. Himmel has been Vice President Americas at Armacell LLC since 2009 and is based in Chapel Hill, North Carolina, USA. In addition, Tom is responsible for our Engineered Foams business around the globe. He has over 20 years of experience at several leading industrial enterprises including AkzoNobel Surface Chemistry and Crompton Corporation.



**Guillerme Huguen**  
Vice President Europe/  
Middle East/Africa

Guillerme Huguen joined Armacell as Vice President EMEA on October 1, 2013. With over 20 years of experience in managing international industrial businesses, mostly in the construction and building materials industry (including marketing management at the Saint-Gobain Group), he is deeply familiar with the nature of the business, as well as market trends, key players, and customers.



**Andrew Stearns**  
Vice President  
Asia Pacific

Andrew Stearns has been Vice President Asia Pacific at Armacell since June 1, 2013, and is based in Singapore. He has over 25 years of business leadership experience in the building products industry. His previous positions include Group Chief Supply Officer at Grohe AG, Divisional Marketing-/ International Business Director at Novar (Caradon), President/ CEO at Grohe Americas, and Group Logistics Director at Novar plc.

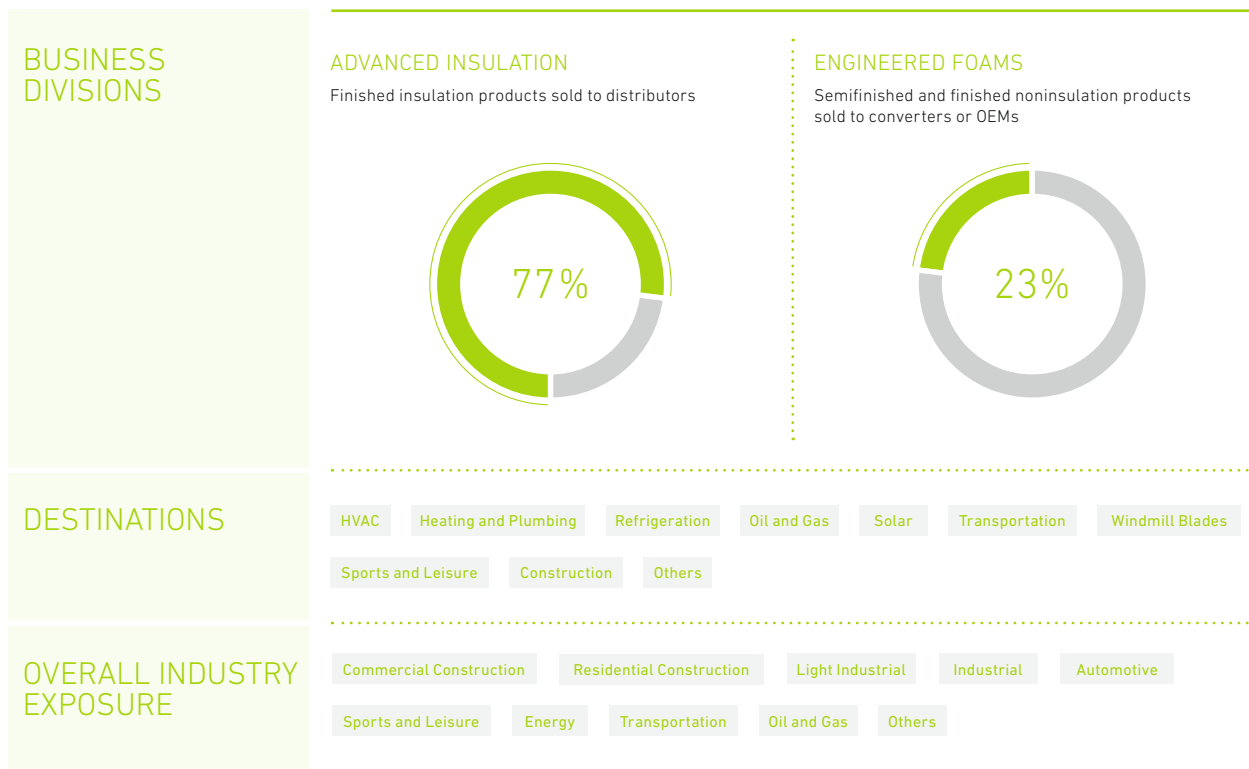
OUR DIVERSE SET OF  
HIGH-PERFORMANCE  
PRODUCTS, END MARKETS  
AND GEOGRAPHIES  
MAKES A DIFFERENCE.

01

CORPORATE STRATEGY

# PORTFOLIO

## An extensive portfolio of high-tech material and high-performance products across multiple end markets and industries



Armacell is a world leader in flexible foams for the equipment insulation market and also a leading provider of engineered foams. Equipment insulation is an international growth market driven by global megatrends such as a rising need for energy efficiency and urbanization. Armacell’s advanced products are used to insulate equipment in both new construction and refurbishment projects and its end markets continue to grow – primarily due to the increasing substitution of other insulation materials and increasing penetration in certain geographies.

In addition to the conventional thermal insulation properties of Armacell’s high-performance materials, the company offers a wide range of products across a variety of end markets which also utilizes other key product characteristics including its lightness, elasticity, resistance to water, fire protection and acoustic properties amongst others.

Today, Armacell employs approx. 2,800 individuals across the entire world and operates 23 production sites in 16 countries on four continents.

Armacell’s history dates back to the year 2000. In the millennium year, Armacell was founded as the successor company to the insulation division of Armstrong World Industries as part of a leveraged management buyout.

In all important regions, Armacell has a leading position in flexible foams. Today, we offer the products and solutions for approximately every second insulation project in the world. As a consequence, the company is almost twice as large as its nearest competitor.

In 1954, Armacell developed the first insulation product made from flexible foam under the “Armaflex” brand. In doing so, it established a new segment within the insulation industry – flexible foam insulation – that it has been shaping ever since. Today, “Armaflex” is the world’s best-known brand and synonym for flexible foam equipment insulation. The company has contributed significantly to the professionalization of this business segment and has set industry standards throughout the world as a technology leader. The main innovations in the field of flexible technical insulation materials have come from Armacell. Against the backdrop of rising energy prices and stricter energy-saving laws, the insulation of building equipment and industrial installations will continue to play an ever increasingly important role in the future.

Armacell's global activities are bundled within two business divisions.

In its **Advanced Insulation division**, flexible foams for the insulation of technical equipment are developed and marketed. Examples of how these products are utilized include the insulation of heating, cooling, and air-conditioning systems in commercial and residential properties; on process pipelines in industrial applications; in transportation; and in the oil and gas industry.



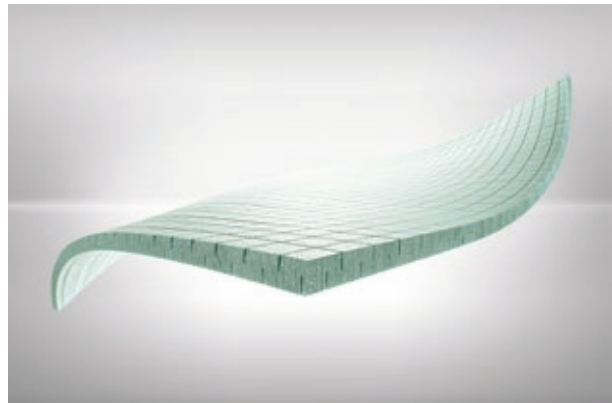
**IVG CAVERNS**

Europe's largest cavern storage facilities, Etzel (Germany)

ArmaSound Industrial Systems offer thermal and acoustic insulation in one system. They minimize the risk of corrosion under insulation (CUI), significantly reduce noise emissions and provide protection to both the operating personnel and the installations. In comparison to traditional insulation systems, Armacell's solutions meet and exceed thermal and noise-control requirements with reduced insulation thickness and weight. The fibre-free systems are fast and easy to install and offer benefits during maintenance work.



The **Engineered Foams division** develops and markets technical foams for applications in various end markets such as wind energy, the automotive industry, the leisure industry, transportation, and other industrial sectors.



**ArmaFORM® PET**

Armacell is the only manufacturer who is able to offer PET foams 100% made from post-consumer PET materials, more precisely from recycled beverage bottles. Its environmental benefits outperform any other structural foam core present in the composite industry and thus ArmaFORM® PET meets not only stringent technical requirements for composite materials but also follows the guidelines of circular economy and helps to preserve and enhance the human environment.

Armacell's customers include operators of buildings and industrial plants, specialist planners, installation technicians, and craftsmen. They generally procure our products on a wholesale basis.

Although Armacell's products and solutions are not addressed directly to end customers, you will nevertheless find them installed in homes, such as in heating pipe insulation.

# MISSION, VISION AND VALUES

We owe our success to our highly engaged and talented employees, who work according to a clear mission, a well-founded vision, and practiced values. These values form the foundation for the professional behavior of each individual employee and for our employees' relationships to Armacell's business partners.

## MISSION – WHY WE EXIST

As inventors of flexible elastomeric foams for insulation, we focus on developing safe, innovative thermal, acoustic and mechanical solutions and systems that create value for our customers in a sustainable way.

## VISION – WHAT WE WANT TO BE

To be the global leader for flexible technical foams by providing value through continually innovating products and systems to improve thermal, acoustic and mechanical efficiency in all targeted applications.

## STRATEGY – HOW WE COMPETE

We grow our market by providing our customers with valuable solutions that offer reliable and certified performance backed by high-calibre people for targeted applications.

Certified performance means specified product properties which are confirmed by an independent testing institute. Applications include, for example, plumbing and HVAC-R solutions, solar equipment, components of industrial installations and others. Valuable stands for a price based on innovative value propositions that offer the best quality/cost ratio and durability to the market. High-calibre people are dedicated, passionate and competent individuals who operate with integrity and strive to be the best.

## VALUES – WHAT WE BELIEVE

### CUSTOMER EXPERIENCE

We create a positive customer-focused culture. Customers value the Armacell experience and continuous business relationship.

### COMMITMENT

We are committed to develop and motivate our people, nurture their talents and develop new skills. We will build strong teams to support our company's performance. The safety of our employees is the company's first commitment.

### EMPOWERMENT AND ACCOUNTABILITY

We give our employees operational responsibility and expect them to develop and perform to the best of their talents. The basis for interaction between employees is mutual respect and trust.

### INTEGRITY

Our employees must be aware of and comply with rules and regulations, regardless of where in the world they are working. Integrity goes deeper than that. It is about doing the right things in the right way, as individuals and as a company. Ethical and responsible behaviour is fundamental to the way we do business. Armacell is a company that can be trusted.

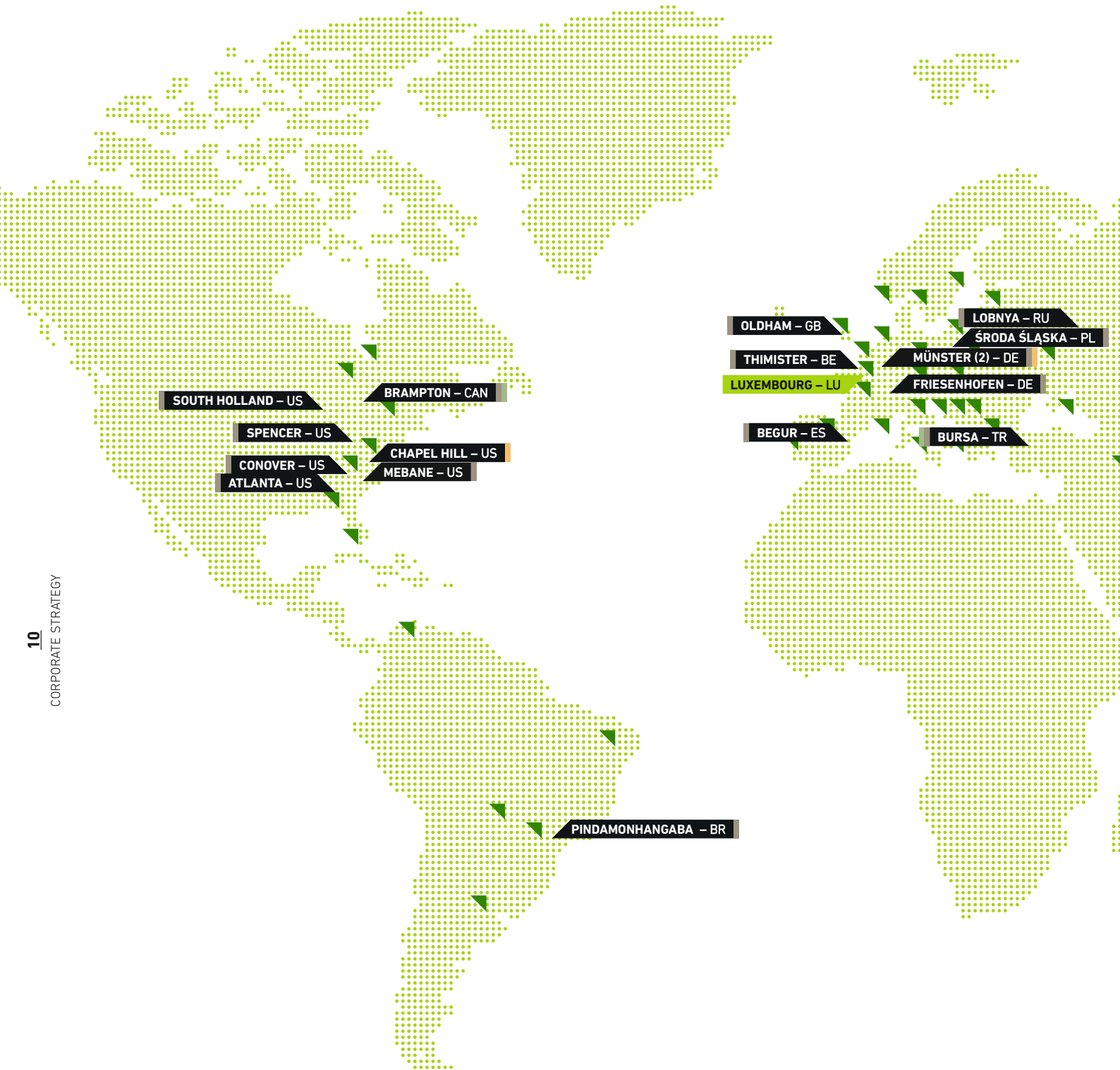
### SUSTAINABILITY

We are focused on sustainable, profitable growth through the development and manufacturing of our products to ensure a positive impact on our community. We contribute to sustainable growth by creating innovations in thermal and acoustical efficiency.

## ARMACELL'S CORPORATE VALUES

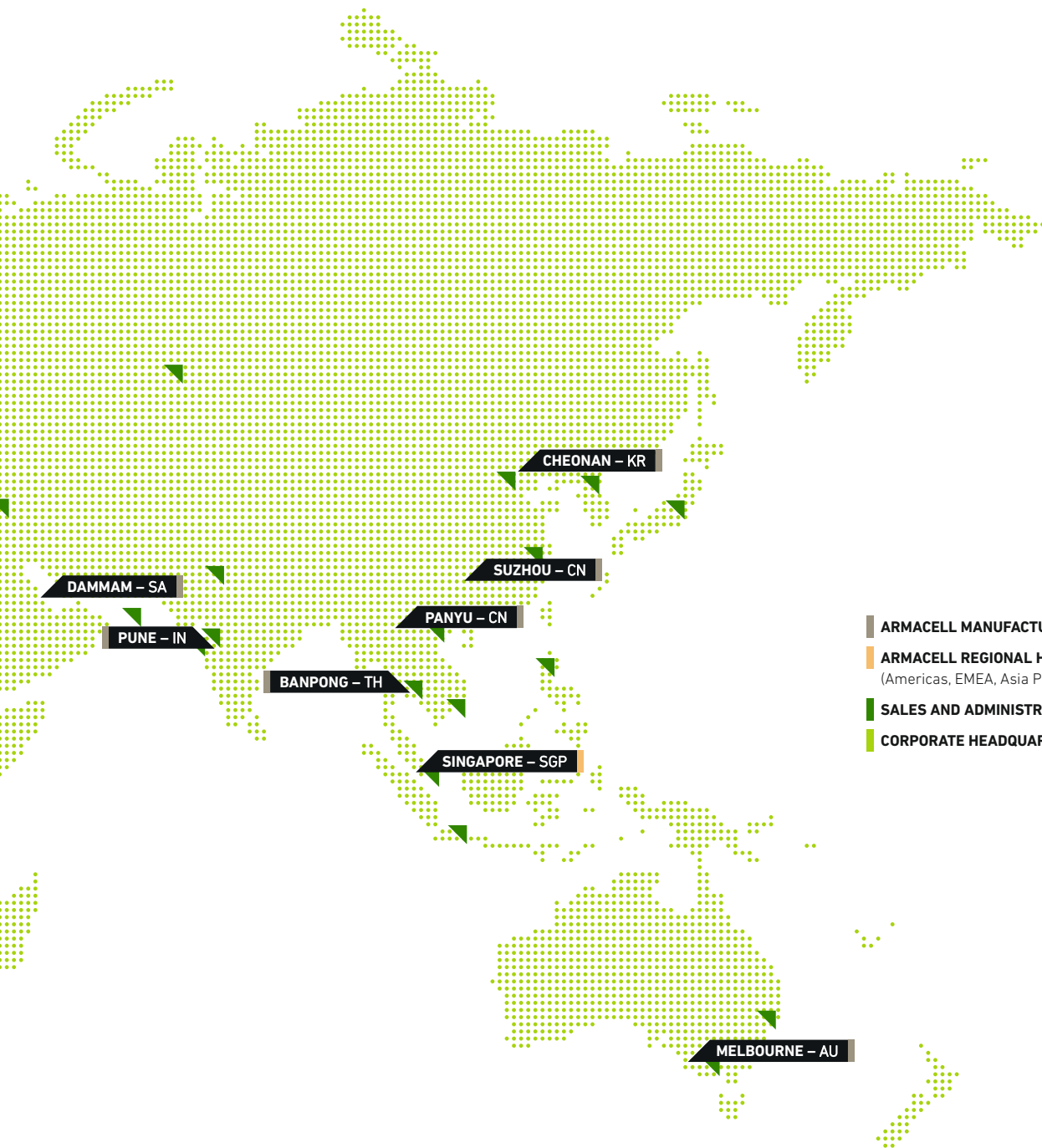


# GLOBAL PRESENCE



Armacell is a global business and is continuously expanding into new markets. Today, Armacell manufactures products in 23 plants in 16 countries on four continents and follows a consequent strategy of internationalization. With production plants in China, Thailand, India, Brazil, Saudi Arabia, South Korea, Turkey, Canada and recently Russia, among other locations, Armacell has tapped new markets at an early stage and is set to grow further in emerging markets by proactively addressing the sustainable energy revolution worldwide.

Our global presence and a diversified product range are key differentiating factors that set us apart from smaller competitors. In markets where Armacell does not have its own factories, sales offices and distributors complete a broad sales network that is unique in the industry.



- ARMACELL MANUFACTURING FACILITIES
- ARMACELL REGIONAL HEADQUARTERS  
(Americas, EMEA, Asia Pacific)
- SALES AND ADMINISTRATION OFFICES
- CORPORATE HEADQUARTERS

Armacell's headquarter is in Luxembourg with regional head offices in Münster (Germany), Chapel Hill (USA), and Singapore (APAC). In each country where Armacell is located, we employ talented people who are keenly aware of national and international standards for their products to address different local requirements. As the portfolio is determined by local trends, Armacell products are always guided by local needs in order to ensure that the customers' expectations and the requirements in the specific regions are met. Our master batch model

with 3 master batch facilities in the key regions allows fast, capex efficient expansion and a local operational footprint close to the customers.

The Group operates four product development centers – in Münster (Germany), Mebane (USA), Thimister-Clermont (Belgium) and Guangzhou (China).

OUR COMMITMENT TO OUR  
CORPORATE RESPONSIBILITY  
MAKES A DIFFERENCE.

02

CORPORATE RESPONSIBILITY



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## ASSOCIATIONS AND INITIATIVES

Ethical and responsible conduct is fundamental to the way we do business. Armacell is a company that can be trusted.



### GLOBAL COMPACT

#### UNITED NATIONS GLOBAL COMPACT

Armacell supports the UN Global Compact initiative since 2006. We clearly understand the importance of the 10 Principles of the Global Compact and take appropriate actions for a sustainable and ethical development of our business. Our high performance systems help conserve energy and reduce CO<sub>2</sub> emissions in unique applications for oil and gas, wind energy, transportation, hospitals or schools. Our primary focus lies on creating innovative solutions for complex challenges and improving performance for all targeted applications.

[www.unglobalcompact.org](http://www.unglobalcompact.org)



### EUROACE

#### EUROPEAN ALLIANCE OF COMPANIES FOR ENERGY EFFICIENCY IN BUILDINGS

Armacell is a proud member of the European Alliance of Companies for Energy Efficiency in Buildings (EuroACE). The mission of EuroACE is to work together with the European institutions to help Europe move towards a more efficient use of energy in buildings, thereby contributing to the EU's commitments on carbon emission reductions, job creation and energy security. This initiative followed an invitation from the European Commission to discuss the importance of tackling the reduction of energy consumption in buildings - responsible for over 40% of Europe's greenhouse gas emissions.

[www.euroace.org](http://www.euroace.org)



### REC

#### RENOVATE EUROPE CAMPAIGN

Armacell is a proud member of the Renovate Europe Campaign (REC), launched in 2011. REC is an initiative of EuroACE, the European Alliance of Companies for Energy Efficiency in Buildings. It is the only EU-wide campaign that focuses exclusively on ambitious renovation of the building stock in the EU and is the voice that "bangs the drum" for energy efficient renovations, taking a technology neutral, integrated and holistic approach to energy efficient renovations.

[www.renovate-europe.eu](http://www.renovate-europe.eu)



### CEFEP

#### EUROPEAN FEF AND PEF INTEREST GROUP

Armacell is a founding member of the European FEF and PEF Interest Group (CEFEP). CEFEP is a syndicate for the providers of technical insulation. As a mouthpiece for the industry the group intends to communicate the benefits of its products to the European market, regardless of the manufacturer. CEFEP was founded under the umbrella of Güteschutzgemeinschaft Hartschaum e.V. (Celle) in 2012. CEFEP represents excellent know-how and high standards in technical insulating materials made from FEF and PEF.

[www.cefep.net](http://www.cefep.net)



### EIIF

#### EUROPEAN INDUSTRIAL INSULATION FOUNDATION

Armacell is a founding member of the European Industrial Insulation Foundation (EiiF). As a neutral and non-profit institution, it promotes insulation as a top-of-mind method of enhancing sustainability and profitability. Since its foundation, the EiiF has established itself as a resource for industries that need to reduce CO<sub>2</sub> emissions and save energy. Its program raises awareness of the growing, much needed benefits of insulation.

[www.eiif.org](http://www.eiif.org)

# EMPLOYEES

We are committed to developing and motivating our people, nurturing their talents and developing new skills.

Dedicated and professional employees are Armacell`s greatest asset. Common values anchored in our corporate culture provide an important orientation and a sound basis for our business success in an increasingly complex global environment. In an effort to strengthen these values, we established a Code of Conduct, which applies to every employee worldwide. To empower our leaders and systematically develop our people we introduced processes such as performance management, succession management and a global Leadership training program.

## ARMACELL CELEBRATES THE FIRST "GLOBAL ARMACELL DAY" AND SHOWS ITS APPRECIATION FOR ITS EMPLOYEES

In 2015 we celebrated the 15th anniversary of Armacell. We used the occasion of this significant milestone to launch a new worldwide initiative – our Global Armacell Day. With this globally recognized event, we thanked our employees for their commitment and their work for our company. Furthermore, we celebrated our global Armacell family: no matter where in the world a colleague works for Armacell, we all share the same mission, vision and the same values. Each employee is "making a difference."

The goal of the Global Armacell Day is to create an annual celebration for the company, during the same time period, all around the world.



Armacell Singapore & Japan celebrate their first "Global Armacell Day" and take part in a healthy cooking class.

## ARMACELL CELEBRATES THE "INTERNATIONAL DAY OF WOMEN AND GIRLS IN SCIENCE" AND SUPPORTS GENDER PARITY AND INCLUSIVENESS OF WOMEN IN THE WORKPLACE

Science and gender equality are both vital for the achievement of the internationally agreed development goals. Over the past 15 years, the global community has made a lot of effort in inspiring and engaging women and girls in science. Armacell contributes to this development and celebrates the "International Day of Women and Girls in Science" to show its appreciation for science and gender equality and to support gender parity and inclusiveness of women in the workplace. Our Development Center consists of different teams that work together as a strong scientific unit. Thermoplastic Materials, Elastomeric Materials, Advanced Materials and Testing – each of these departments deals with specialized topics, which require qualified experts.



Science is highly relevant for Armacell and therefore scientists are as well. The development of high performance products requires a lot of competences, research and expertise.

# ENVIRONMENT

We undertake initiatives to promote greater environmental responsibility and support a precautionary approach to environmental challenges.

The commitment to protect our environment is an integral part of Armacell's business strategy and a key promise behind our corporate philosophy since our foundation in 2000. Our business activities worldwide comply with the applicable environmental laws and regulations, in addition to the requirements of our environmental permits. As a global leader in energy efficiency, we are focused on sustainable, profitable growth through the development and manufacturing of our products. We ensure a positive impact on our community and protect both people and the environment by contributing to energy conservation.

## ARMACELL IS THE FIRST MANUFACTURER OF FLEXIBLE TECHNICAL INSULATION MATERIALS TO PRESENT ENVIRONMENTAL PRODUCT DECLARATIONS (EPDs)

Environmental product declarations (EPDs) are becoming more and more important in the construction industry: they provide a transparent, independent and reproducible analysis of the environmental impacts of construction products and give detailed information with sound data and figures. As a "sustainability passport" EPDs form the basis for designing green buildings in accordance with certification schemes such as LEED, BREEAM or DGNB.

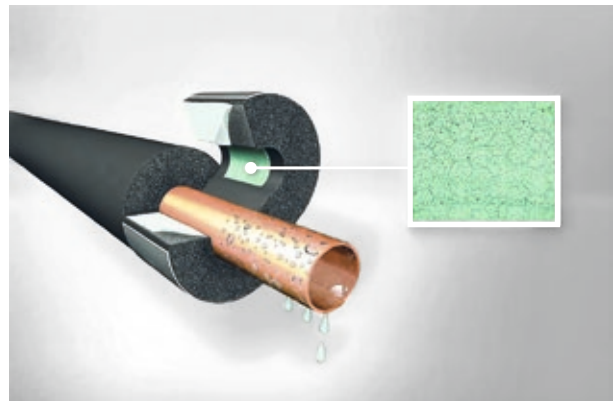
[www.armacell.com/epd](http://www.armacell.com/epd)



Environmental product declarations (EPDs) are independently verified and registered documents that communicate transparent and comparable information about the life-cycle environmental impact of our Armaflex products.

## ARMACELL LAUNCHES PIPE SUPPORT MADE WITH ENVIRONMENT-FRIENDLY, LIGHTWEIGHT PET CORE

The new Armafix pipe support: more environment-friendly & more efficient. The system solution for preventing thermal bridging is equipped with a load-bearing segment made of environment-friendly PET. The material consists of recycled PET bottles which are industrially foamed. PET is lightweight, has high mechanical strength in combination with residual flexibility and a maximum service life.



Armafix pipe supports are recommended for use where thermal bridging may occur. This is particularly important on refrigeration and chilled water pipes. In heating installations the use of pipe supports will generally improve energy conservation.

# COMMUNITY

We are committed to the communities we operate in and focused to engage on a local level to have a positive impact on the regions and their residents.

As a company with a global footprint, we see it as our responsibility to support local good citizenship projects such as child fostering in Sri Lanka, Habitat for Humanity in the US, maintenance of community gardens, regular donations and cooperation with non-profit organizations. Armacell emphasizes the social dimension of sustainability among its management and employees with projects that help engage with the local communities in which we operate.

## ARMACELL EMPLOYEES SUPPORT THE LOCAL ORPHANAGE "MAHER" ENCOURAGING GIRL CHILD EDUCATION IN INDIA

Armacell India engaged with the community in the nearby orphanage "Maher" and spent the day with the kids doing various activities like painting competitions or group games. Our employees donated useful items like clothes, toys, and books. Armacell India made a donation to the orphanage to further girl child education.



Armacell employees support local orphanage contributing to girl child education.

## ARMACELL EMPLOYEES SUPPORT THE LOCAL NON PROFIT ORGANIZATION "HEARTS" HELPING OUT CHILDREN UNDERGOING BONE MARROW TRANSPLANTS

Armacell LLC in the U.S. has a unique partnership with the HEARTS program – a nonprofit organization targeting children from all over the world undergoing bone marrow transplants at Duke University Children's Hospital. In 2015, Armacell employees and their families and friends participated in the annual "Triangle Heart Walk". With Armacell's assistance, over USD 4,279 were raised and donated to the Heart Association.



Armacell employees and their families participate in the annual Heart Walk in the USA.

OUR CONTINUOUS GROWTH  
MAKES A DIFFERENCE.

03

FINANCIAL RESULTS

# FINANCIALS

	2011	2012	2013	2014	2015
<b>Income statement items in EUR million</b>					
Net sales	400.1	425.3	415.7	452.2	540.2
Adjusted EBITDA <sup>1</sup>	57.0	63.5	64.9	71.2	95.5
% of net sales	14.2%	14.9%	15.6%	15.7%	17.7%
Adjusted EBITA <sup>2</sup>	43.9	50.2	51.7	56.1	78.8
% of net sales	11.0%	11.8%	12.4%	12.4%	14.6%
Non-recurring items	5.7	7.0	*24.0	12.5	12.4
EBIT	14.9	26.3	10.6	21.7	40.7
<b>Balance sheet items in EUR million</b>					
Current assets	164.0	163.0	124.1	159.1	187.6
Non-current assets	343.9	335.8	498.9	514.4	564.8
Current liabilities	76.9	72.0	81.4	118.3	106.4
Non-current liabilities and equity	431.0	426.8	541.7	555.1	646.0
<b>Other items in EUR million</b>					
Cash Flow from adjusted operating activities <sup>3</sup>	47.1	62.7	54.5	56.3	73.1
Investments (excl. acquisitions)	10.3	18.8	16.3	20.6	28.4
Adjusted free cash flow (before acquisitions)	39.0	44.3	38.9	33.2	45.5
<b>Net debt – excluding shareholder loans in EUR million</b>					
Economic equity <sup>4</sup>	54.7	57.0	122.4	93.1	96.7
Net debt	244.1	220.0	295.5	321.5	391.6
Net debt/EBITDA	4,3x	3,5x	4,6x	4,5x	4,1x

Due to a change of shareholders of the Armacell Group as of July 2, 2013, the financial data presented for 2011, 2012, the first half of 2013, and the second half of 2013 come from the Audited Combined Financial Statements for the respective periods reflecting the combined results of operations and financial position of the operational Armacell Group and are comparable to the 2014 financial data from the Audited Consolidated Financial Statements of Armacell International S.A. Luxembourg.

The 2013 financial data presented here is the result of the sum of the Audited Combined Financial Statements for the first half of 2013 and the Audited Combined Financial Statements for the second half of 2013.

\* The increase in the amount of nonrecurring items in 2013 results from transaction costs associated with the change in shareholders and the related new financing of the Armacell Group.

<sup>1</sup> Adjusted EBITDA is the result before amortization, depreciation, interest and taxes adjusted by non-recurring items.

<sup>2</sup> Adjusted EBITA is the result before amortization, interest and taxes adjusted by non-recurring items.

<sup>3</sup> For the calculation of the adjusted cash flow, the impact of the non-recurring items and acquisitions is excluded.

<sup>4</sup> Economic equity includes shareholder loan.

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# BUSINESS STRUCTURE AND POSITIONING

Armacell operates two business divisions: **Advanced Insulation** and **Engineered Foams**.

Armacell utilizes its vast portfolio of technologies to continue developing and marketing flexible insulation products and solutions, thereby driving and setting standards worldwide. Over 250 active patents and 60 running patent applications highlight the Group's unparalleled position in a market that is characterized by sustainable growth.

## ADVANCED INSULATION

Armacell's Advanced Insulation business focuses on insulation materials for equipment insulation and for industrial applications. Products are predominantly used to reduce loss of temperature and environmental impact when transporting non-electrical hot or cold energy. Typical applications include heating, ventilation and air conditioning (HVAC), heating and plumbing (H&P), refrigeration, oil & gas, commercial & residential construction as well as acoustics. Armacell's Advanced Insulation products and solutions are equally applied as part of initial equipment installations as well as part of refurbishments.

## ENGINEERED FOAMS

The Engineered Foams business focuses on high-performance foam materials, which are mostly used in high-tech, light-weight and often tailor-made applications across a broad range of end markets and complex applications. These include wind energy, automotive, transportation as well as sports and leisure.

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# MACROECONOMIC CONDITIONS AND BUSINESS ENVIRONMENT

In 2015, the global economic development again exhibited a mixed picture. While the advanced economies continued their modest recovery, growth declined in emerging countries. The economic slowdown in China, lower global trade rates and the weaker investment and manufacturing activity weighed on global economic development. The strong decrease in oil prices caused a downshift in the oil-exporting countries, whereas most oil-importing countries accelerated their economic activity. All in all, the global real gross domestic product is expected to have grown by 3.1% in 2015 (2014: 3.4%).

The Eurozone economy grew by an estimated rate of 1.5% in 2015 (2014: 0.9%). Domestic demand, particularly private consumption supported by the low oil prices and favorable financing conditions, continued to be the growth engine for the European economy. Spain remained on a strong recovery path after years of recession, with the French and Italian economies accelerating gradually in 2015 and growth in Germany moderating.

Again, growth in U.K. and Eastern Europe with the exception of Russia outperformed the Euro area. The economy in Russia was affected by weak investment activity and burdened by the international trade sanctions related to the Ukraine-conflict as well as by the sharp fall in oil prices.

The U.S. economy is expected to have grown by 2.5% in 2015 (2014: 2.4%). Positive effects came from private consumption and investments, made on the back of more favorable financing conditions and firming housing and labor markets.

The economic growth in the emerging markets and developing economies is forecast to have slowed from 4.6% in 2014 to 4.0% in 2015. Besides the slower growth in China at 6.9% versus 7.3% in 2014, the impact of declining oil and commodity prices penalized the oil producing economies in the Middle East, Russia, Brazil and some African countries. Brazil faced a recession in 2015. India and the ASEAN countries exhibited stable to moderately increasing growth rates compared to 2014.

The flexible equipment insulation market has proven resilient to cyclical fluctuations and overall robust in an increasingly volatile macroeconomic environment. This is due to four megatrends, which strongly drive industry market growth:

- **Energy efficiency:**

Technical equipment is today known as the second most important source of energy losses. This leads to increasing and tightening regulation across applications and key end markets alike, further supported by an environment of volatile energy prices and a focus on total cost of installation. This drives the demand for state-of-the-art equipment insulation and thus the substitution of legacy material.

- **Urbanization:**

The concentration of energy production and sources leads to higher and more stringent requirements in respect to energy distribution and in turn fuels the growing demand for high-performance insulation products.

- **Food supply globalization:**

The increase in global supply of fresh foods to developed countries is continuously driving the expansion and growth of the global cold supply chain. The sophistication level of distribution and refrigeration has increased with rising quantities and shortened turn-around times. This is again driving demand for light-weight, cost effective and end-to-end insulation solutions.

- **Acoustic comfort:**

Growing global noise levels have resulted in generally lower tolerance of humans to noise and vibration. To this extent, public authorities are predicting rising health concerns and are commencing to put in place noise pollution regulation. The diversity of situations arising in future drives the requirement and growth for Armacell's customized acoustic solutions and systems.



# GROUP FINANCIAL PERFORMANCE

## REVENUE AND PROFIT

In 2015 Armacell was able to considerably outperform market growth again. Total revenues increased by 19.5% to a record level of EUR 540.2 million in 2015 (2014: EUR 452.2 million).

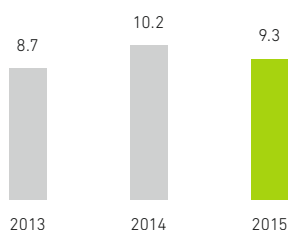
Key driver of the revenue development was organic growth through successful geographical expansion, optimization of distribution channels and attractive new product offerings as well as the acquisitions concluded in Turkey and Canada, the full year impact of AMEC in 2015 and translation gains mainly by the strengthening of the USD and USD related currencies against the EUR.

Armacell's adjusted EBITDA rose by 34.1% from EUR 71.2 million in 2014 to EUR 95.5 million in the reporting period. All business divisions contributed to the strong earnings uptake with the highest increase originating from the Engineered Foams division. Adjustments for unusual items amounting to EUR 12.4 million (2014: EUR 12.5 million) were mainly related to the Group's buy-out, acquisitions and the broadening of the Group's regional footprint as well as restructuring measures. The adjusted EBITDA-margin in 2015 increased to 17.7% in 2015 (2014: 15.7%). Adjusted EBITA rose by 40.5% from EUR 56.1 million in 2014 to EUR 78.8 million in 2015. The EBITA margin increased to 14.6% in 2015 compared to 12.4% in the previous year.

The margin improvement was driven by a higher value creating product mix and by significant productivity improvements generated through Armacell's "WAM" program – Worldclass Armacell Mindset. One important part of this group-wide continuous improvement program, which in total covers 12 areas and numerous single measures, is the Productivity Action Plan "PAP". PAP targets the reduction of costs for manufacturing, labor, freight and logistics as well as lower consumption costs, e.g. for packaging and energy. Savings alone from PAP amounted to approximately EUR 9.3 million in 2015.

## PRODUCTIVITY ACTION PLAN

in EUR million



## INVESTMENTS AND CASH FLOW

Armacell continued to generate strong cash flows in 2015. Cash flow from operating activities adjusted by non-recurring items improved to EUR 73.1 million (2014: 56.3 million) driven by the strong earnings increase in 2015. The cash flow from investing activities excluding acquisitions amounted to EUR -28.4 million (2014: EUR -20.6 million). The higher outflow is primarily related to the purchase of property, plant and equipment. The positive financing cash flow of EUR 21.8 million (2014: EUR -8.8 million) mainly resulted from proceeds from borrowings dedicated to the financing of the two acquisitions previously outlined. As a consequence, Armacell's adjusted cash-flow conversion rate, defined as EBITDA minus CAPEX over EBITDA, in 2015 reached 70.3% after 71.1% in 2014.

## BALANCE SHEET

As of 31 December 2015, total assets of Armacell amounted to EUR 752.4 million. The rise of EUR 78.9 million in comparison to the previous year's balance sheet date was driven by a net increase in property, plant and equipment to EUR 181.0 million (2014: EUR 161.8 million) and growth in intangible assets to EUR 375.8 million (2014: EUR 349.9 million). The increase is driven by the acquisitions in 2015, record CAPEX activities which are above depreciation as well as some FX translation-impact.

Current assets of the Group as of 31 December 2015 amounted to EUR 187.6 million (2014: EUR 159.1 million). Inventories grew to EUR 55.0 million (2014: EUR 44.6 million) and trade receivables to EUR 73.4 million (2014: EUR 62.2 million) in line with the operational growth in 2015. As of 31 December 2015, cash and cash equivalents of the Group rose to EUR 41.3 million (2014: EUR 35.1 million). Total liabilities of the Group at the end of the year 2015 amounted to EUR 721.2 million (2014: EUR 640.6 million). Economic equity increased from EUR 93.1 million to EUR 96.7 million in 2015. While the non-current liabilities excluding liabilities due to shareholders rose from EUR 462.1 million on 31 December 2014 to EUR 549.3 million at the end of 2015, current liabilities sank to EUR 106.4 million on 31 December 2015 (2014: EUR 118.3 million). Non-current liabilities excluding the liabilities due to shareholder primarily consist of non-current borrowings of EUR 402.8 million (2014: EUR 311.5 million) and provisions for pensions and similar obligations amounting to EUR 82.2 million (2014: EUR 86.7 million).

Net debt of Armacell increased from EUR 321.5 million at the end of 2014 to EUR 391.6 million as of 31 December 2015 driven by the acquisitions and the strengthening of the USD against the EUR. Further to its cash and cash equivalents, Armacell has ensured a revolving credit facility of USD 100 million, which remained undrawn as of 31 December 2015.

# OVERVIEW OF BUSINESS PERFORMANCE BY DIVISION

## ADVANCED INSULATION

In fiscal year 2015, revenues in the Advanced Insulation division grew by 15.9% to EUR 412.5 million (previous year: EUR 355.8 million) driven by strong organic and inorganic growth across all regions, especially in the Americas. Growing demand was perceived for HVAC and H&P applications. In 2015, 77% of Group sales were generated in the Advanced Insulation business segment.

## ADVANCED INSULATION EUROPE, MIDDLE EAST AFRICA

Advanced Insulation EMEA, which is the largest region of the Group, continued to prosper in 2015. Drivers remained the robust growth in Emerging Europe including Central Europe, the Middle East and Turkey as well as the preservation of our market shares through technology upgrades fostered by innovation and increased regulatory requirements. Revenues of EUR 195.9 million were generated in 2015, equal to an increase of 12.0% over 2014 (2014: EUR 175.0 million). Growth was driven by market share gains in Russia, a solid development of Northern Europe and the recovery of the Spanish market. The new subsidiaries OneFlex in Turkey (consolidated as of February 2015) and the first full year contribution of AMEC in Saudi Arabia (formerly AZMEC joint venture) facilitated market penetration in important growth countries and thus further spurred regional growth.

### KEY FIGURES FOR ADVANCED INSULATION EMEA

EUR million	2013	2014	2015
Revenues	168.8	175.0	195.9

## ADVANCED INSULATION AMERICAS

In the United States, total spending in non-residential construction increased strongly by 8.8% in 2015. Positive trends came from heavy engineering as well as from the private commercial and industrial sectors. In contrast, spending on healthcare and public safety projects declined by over 7% in 2015 compared to 2014, while in the larger education sector expenditures sank only moderately. Residential housing starts increased by 10.7% in 2015 versus 2014. In Brazil, the domestic construction market declined by 21.6% in 2015 following the boost of investment for the FIFA World Cup in 2014 and the continued recession due to, among other factors, declining commodity prices hitting the Brazilian economy hard.

In this environment, Advanced Insulation Americas grew at an outstanding rate in 2015. Revenues increased by 26.2% to EUR 103.6 million (2014: EUR 82.1 million). Growth was driven by a deeper penetration of the HVAC market due to an improved local distribution network in North America and the expansion into the Latin American markets outside of Brazil. The acquisition of ITP in Canada (consolidated as of mid of March 2015) is a strong asset for Armacell given the current low penetration rate of flexible foam insulation in the U.S.. Revenue growth was also impacted by a favorable USD development against the EUR.

### KEY FIGURES ADVANCED INSULATION AMERICAS

EUR million	2013	2014	2015
Revenues	79.3	82.1	103.6

## ADVANCED INSULATION ASIA PACIFIC

In Asia Pacific, growth in the urban residential sector slowed and vacant property levels remained high. In China, the construction sector exhibited a shift from government financed initiatives towards privately funded commercial and industrial projects. The anti-corruption initiative continued to impact governmental projects which delayed the execution of projects.

Revenues of Advanced Insulation APAC amounted to EUR 113.0 million in 2015. This is a plus of 14.5% compared to the previous year's figure of EUR 98.7 million. The performance was reinforced by market share gains in India and in the Japanese refrigeration business. Moreover, the improved market access following the successful integration of the Korean distributor Armatech added to the sound business development in the region.

### KEY FIGURES ADVANCED INSULATION APAC

EUR million	2013	2014	2015
Revenues	78.7	98.7	113.0

## ENGINEERED FOAMS

Armacell's Engineered Foams business division is split between component foams and PET foams. Component foam solutions, i.e. engineered elastomeric foams and cross-linked polyolefin foams, are characterized by low weight and high mechanical resistance as well as by additional functionalities, such as water sealing function, acoustic absorption or shock attenuation qualities. PET foams are core material in composite sandwich panel structures and are currently mainly used in wind turbine equipment. In the past years, Armacell has expanded into applications, where its foams' acoustic and vibration absorption, mechanical resistance, and light-weight properties add extra value.

Engineered Foams reported a very strong development in 2015. At EUR 124.4 million, sales exceeded the previous year figure of 94.6 million by 31.5%. Besides strong organic growth the acquisition of ITP and favorable currency movements contributed to this performance. In total, Engineered Foams contributed 23% to Group revenues in 2015.

## COMPONENT FOAMS

Compared to the previous year, Armacell's component foams division grew by 38% in 2015, despite a demanding environment. This dynamic growth is mainly due to the broader and deeper market access in North America resulting from the acquisition of the ITP business, a solid development of the automotive industry and the impact of currency movements.

## PET FOAMS

Armacell has been able to stabilize its market-leading position in supplying PET core foams to wind blade manufacturers. This market segment has grown 20% from 2014 to 2015 with strong increase in demand from Asia and North America and a continuous moderate growth in Europe. Parallel to its wind market activities Armacell strengthened its position in transportation mainly in the area of composite panels for the light weight truck market as well as for leisure boat applications.

Moreover, Armacell reached a major breakthrough in producing foam core material from used PET bottles in 2015. These bottles are rejected for re-use by the PET recycling industry and are usually dumped in landfill sites. Thanks to its innovative technologies, Armacell is currently the only producer who is able to turn this waste material into a high-quality resource and feed it back into the economic cycle.

Based on its high capabilities with respect to innovation and market access, revenues in the PET foam business continued to increase strongly by 12.9% in 2015.

### KEY FIGURES ENGINEERED FOAMS

EUR million	2013	2014	2015
Revenues	86.9	94.6	124.4

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## OUTLOOK

Global GDP growth is forecast to accelerate again in the coming years. For 2016, the IMF expects an economic growth of 3.4%, followed by a slight uptick to 3.6% in 2017. The current world economy is characterized by the sharp decline in oil prices and a still modest economic growth with strong divergences between the regions. Development in the advanced economies is expected to be the main growth driver on the back of slowly tightening financing conditions, a stabilization of commodity prices - however at low levels - and a gradual rebalancing of the Chinese economy.

For the Eurozone, economists project a growth rate of 1.7% in 2016. Russia, which continues to adjust to low oil prices and Western sanctions, is expected to remain in recession in 2016, shrinking by 1.0%. The U.S. economy is predicted to exhibit steady growth of 2.6% in 2016 due to robust private spending and investment. However, U.S. exports and manufacturing activities are stressed by the strong dollar. Japan's economy is forecast to grow by 1.0% in 2016. The Emerging countries are expected to grow by 4.3% in 2016 with China's economy increasing by 6.3%. The expected ongoing decline of growth in China is primarily due to a weaker investment activity, as the economy continues to rebalance. Strained by the recession in Brazil, the GDP in Latin America and the Caribbean is estimated to contract by 0.3% in 2016.

The equipment insulation market, however, is projected to deliver sustainable and above average growth in the coming years which, according to a study by Advancy Strategy Consulting, should outperform global economic growth in the years 2016-2018, primarily boosted by the substitution of legacy materials. The global addressable PET foam market, one of the key markets for the Engineered Foams business, is on course for an extraordinary growth. Demand is expected to significantly outperform economic growth for the years 2016-2018 mainly driven by the global wind market as well as an increasing demand from the marine and the transportation sectors and from the developing markets. Generally, PET finds more and more applications in the construction sector as well. Civil engineers and architects commence to recognize the potential of the light weight and advantageous structural performances of PET as a relatively new alternative to existing materials. Last but not least, substantial future growth is expected in acoustic insulation with Europe and the U.S. being the largest markets by volume and value, respectively. Applications for acoustic insulation are expected to grow by 5.8% CAGR 2014-2019 with above average growth rates in Asia Pacific and North America.

Armacell is well positioned to compensate heterogeneous global economic growth trends given its strong international footprint and its broad portfolio of products and solutions. The Group is able to benefit from the expected strong growth of the flexible equipment insulation market, which is driven by a growing insulations demand as well as by the substitution of legacy insulation materials. Armacell is exposed to a wide range of end-markets and applications, maintains a strong innovation pipeline and enjoys a good reputation as a market leader in the flexible foams equipment insulation market. Given this unique positioning, Armacell's business model has proven resilient. Thus Armacell is convinced to substantially grow sales in the coming years and to outperform the market. Growth is expected to be generated across all products and regions. Armacell's volume growth in the Advanced Insulation business in EMEA is expected to be spurred by product portfolio expansions and an intensified penetration of recently entered markets, such as Turkey and the Middle East. Moreover, Armacell intends to gain market share in Russia following the opening of the new production plant. Development in the Americas is progressed by solid private and public construction spending, growth in HVAC and refrigeration for commercial end markets as well as new products launches and a further regional expansion into South America. Continued sales growth in Asia Pacific and India is supported by product launches and an expansion into new market segments.

In the Engineered Foams business, further sales growth is driven by the development of PET capacity in North America alongside geographic expansion of component foams into Europe and Asia Pacific, with automotive being the largest end market and sports & leisure the fastest growing.

Apart from the underlying revenue growth, profitability increases are expected to be achieved through productivity cost savings, especially generated through the continuation of efficiency programs and an increased operational leverage.

Armacell will further implement initiatives to pursue organic growth, both through geographical expansion outside of traditional markets as well as through product diversification and market enlargement inside the core insulation business. In addition to targeting organic growth, Armacell's strategy comprises external growth in defined areas via mergers and acquisitions.

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# IMPRINT

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