

# "LIVING SUSTAINABILITY. TOGETHER."

GRI REPORT 2016



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## 1.1 EDITORIAL BY KEVIN MCQUADE<sup>1</sup>

### DEAR VALUED STAKEHOLDER,

Sustainability is the foundation of how we do our business and the key to our business success. Therefore, sustainability is firmly integrated into all of our decision-making processes and steers our company's strategy moving forward.

We started our sustainability journey at INEOS Styrolution in 2011 with various sustainability-related initiatives, and since 2014 developed a unified framework – our global sustainability program. With the publication of our first qualitative report in 2015 and our first quantitative report in 2016, which complies with the GRI's G4 guidelines, we are advancing our sustainability processes year on year. This progress has also been externally recognized with a silver certificate by EcoVadis, a leading independent corporate sustainability assessor. We improved in our corporate social responsibility scoring from 47 for the year 2014 to 59 for the year 2015, which now places us in the top 10% in the category of plastics manufacturers.

This year-on-year improvement in the sustainability of our products, operations and business management is of critical importance to our customers, our shareholder and parent company INEOS, our investors, employees and the communities we operate in. Providing sustainable products, solutions and services is not only what our customers expect from us as their supplier, it also gives us a competitive advantage to stay ahead of the curve and maintain our position as the market leader for styrenics.

To demonstrate our commitment to higher transparency, continuous improvement as well as environmental and social responsibility, as of this year, we have committed ourselves to global sustainability targets that cover seven focus areas of our business: SHE (Safety, Health & Environment), Compliance, Human Resources, Procurement, Operations, R&D, and community involvement.

We support the shift to a circular economy and aim to develop sustainable solutions in different aspects of our products' lifecycle – right from innovation through the use phase to the end of life of the product when its embedded resources can be recovered or reintroduced into the product's life cycle. Through our close collaborations with leading research institutes and partners along the value chain, we are working on a proof of concept for promising chemical recycling technologies for polystyrene.

Operationally, we continue to improve the environmental footprint of our sites and further expand our sites' ISO energy and environmental certifications. In terms of supply chain, we will further drive our sustainability standards beyond the boundaries of our company and deeper into the upstream and downstream of our supply chain. Preventing plastic pellet loss during production and transportation is our responsibility, therefore, we are not only taking action within our operations, we also work together with our value chain to share best practices on zero pellet loss.

We believe compliance with legislation as well as with our own business principles is a precondition for sustainability. To us, compliance is non-negotiable and is, thus, inherent in our daily decision-making.

Our employees are our most valuable asset, which is why workplace safety is and remains our undisputed #1 priority. We have high health and safety standards in place and strive to ensure that every colleague, contractor and on-site logistics personnel lives our safety culture to ensure that we all return home safely to our families.

Our responsibility does not end at the company gates. With this in mind, we are also committed to being a responsible and active corporate citizen for the communities we operate in.



Responsible business management implies taking into account economic, environmental and social factors to sustain and further grow our business in the long term. As part of our Triple Shift strategy implementation, we have made several investments with a sustainable impact, contributing to enhanced energy efficiency, better material yield and reduced emissions. Going forward, we will explore further opportunities for sustainable investments.

This year, we will review our materiality matrix considering emerging megatrends as well as internal and external stakeholder expectations that are material to our business operations to ensure that we are moving in the right direction. We look forward to continuing on our path of "Living Sustainability. Together." in close engagement with our stakeholders.

This progress made over the last two years would not have been possible without the joint efforts of all our 3,200 colleagues across the globe who demonstrate their commitment to sustainability and our company.

Sincerely yours,

A handwritten signature in dark ink that reads "Kevin J. McQuade". The signature is written in a cursive, professional style.

Kevin McQuade – CEO INEOS Styrolution

[Click here to view the whole video editorial](#)

## 1.2 BOARD MEMBERS' VIEW

"AS THE LEADING GLOBAL STYRENICS SUPPLIER, WE HAVE INCORPORATED SUSTAINABILITY IN OUR OPERATIONS. ENSURING RESPONSIBLE BUSINESS PRACTICES IN OUR PLANTS, THROUGHOUT ALL OUR PROCESSES AND ACROSS THE ENTIRE VALUE CHAIN IS A KEY ELEMENT OF OUR SUSTAINABILITY DRIVE. THIS INCLUDES MANY ASPECTS, FROM THE EFFICIENT USE OF RESOURCES AND THE REDUCTION OF OUR ENVIRONMENTAL FOOTPRINT TO ACHIEVING ZERO INCIDENTS IN OPERATIONS, MAKING INEOS STYROLUTION A SAFE AND SECURE PLACE TO WORK."

**Pierre Minguet – President Operations**

"FOR US, SUSTAINABILITY IS NOT MERE LIP SERVICE. A RESPONSIBLE APPROACH TO OUR PRODUCT PORTFOLIO IS KEY TO US. THIS MEANS LOOKING AT THE ENTIRE SUPPLY CHAIN – FROM DEVELOPMENT AND PRODUCTION TO TRANSPORT, SALE AND USE, AND RE-ENTRY INTO THE PRODUCT LIFE CYCLE. BY OFFERING STYRENIC SOLUTIONS THAT DELIVER STRONG, SUSTAINABLE PERFORMANCE, WE WANT TO ENSURE THAT OUR CUSTOMERS' BUSINESSES AND END-CONSUMERS' CHOICES BECOME MORE SUSTAINABLE."

**Rob Buntinx – President Europe, Middle East and Africa**

## SUSTAINABILITY IS KEY TO BUSINESS SUCCESS – INEOS STYROLUTION'S TOP MANAGEMENT IS CONVINCED!



Board (from left to right): Rob Buntinx, Pierre Minguet, Kevin McQuade, Markus Fieseler, Alexander Glück and Steve Harrington

"OUR STAKEHOLDERS INCLUDING INVESTORS, FINANCIAL EXPERTS AND RATING AGENCIES INCREASINGLY EXPECT OUR COMPANY TO ADDRESS SUSTAINABILITY IN ALL BUSINESS AREAS. THROUGH THIS REPORT, WE AIM TO PROVIDE HIGHER TRANSPARENCY ON OUR ACTIONS AND THEREBY MAINTAIN THE TRUST AND CREDIBILITY OUR STAKEHOLDERS HAVE PLACED IN US. FOR US, SUSTAINABILITY AND FINANCIAL SUCCESS SIMPLY GO HAND IN HAND."

**Markus Fieseler – Chief Financial Officer**

"THE MOST SUCCESSFUL COMPANIES ARE THOSE THAT HAVE INTEGRATED SUSTAINABILITY INTO THEIR CORE BUSINESSES. THAT IS WHAT WE HAVE DONE AT INEOS STYROLUTION AND THIS IS WHY WE APPLY THE SAME STANDARDS THROUGHOUT ALL REGIONS, GOING BEYOND REGIONAL OR COUNTRY STANDARDS."

**Alexander Glück – President Americas**

"SUSTAINABLE DEVELOPMENT IS THE PATHWAY TO THE FUTURE AND OFFERS US A FRAMEWORK TO ENGAGE WITH OUR CUSTOMERS, SUPPLIERS AND OTHER STAKEHOLDERS TO ACHIEVE GROWTH WHILE PROMOTING ENVIRONMENTAL STEWARDSHIP AND SOCIAL RESPONSIBILITY. THIS IS A CRITICAL SUCCESS FACTOR FOR PARTICIPATION IN EMERGING MARKETS."

**Steve Harrington – President Global Styrene Monomer and Asia-Pacific**

## 2.0 OUR APPROACH TO SUSTAINABILITY

# SAFE AND SUSTAINABLE STYRENICS – SUSTAINABLE SUCCESS



For INEOS Styrolution, sustainability is not just about safeguarding our license to operate. We go one step further: To us, it is a lever for growth.

## 2.1 KEY SUSTAINABILITY HIGHLIGHTS 2016

### SAFETY

**100%** of sites/ offices have formed **JOINT MANAGEMENT-WORKER SAFETY COMMITTEES**

Reduction in severity of **LOST TIME INJURY RATE (LTIR)** to **0.12** (versus 0.22 in 2015)

In 2014 and 2015, more than **13,000** **BEHAVIORAL-BASED SAFETY OBSERVATION (BBSO)** submissions per year

### RESPONSIBLE OPERATIONS

**60%** of sites are ISO 14001 certified

**8%** decrease in specific waste for polymers globally

**6%** reduction of NOx in EBSM\*

\* EBSM = ethylbenzene styrene monomer

**100%** of sites are ISO 9001 certified

**40%** of sites are ISO 50001 certified

**4%** savings in energy for polymers globally

### RESPONSIBLE PRODUCTS

**SUSTAINABILITY** integrated into all **CUSTOMER WORKSHOPS**

### COMPLIANCE

**Entire relevant employee base** trained on **ANTITRUST**

**Revision** of **CODE OF CONDUCT**

**Introduction** of **INTERNATIONAL TRADE POLICY**

### RELIABLE EMPLOYER

**EMPLOYEE DEVELOPMENT** training programs initiated in all regions

**WORLDWIDE ROLL-OUT** in progress

### RELIABLE SUPPLIER

**GLOBAL ROLL-OUT** of **ECOVADIS** assessment of suppliers

### COMMUNITY INVOLVEMENT

14 out of 15 **production sites & 3 out of 4 headquarters** support their communities with **CORPORATE SOCIAL RESPONSIBILITY (CSR) PROJECTS** and/ or **DONATIONS**

## 2.2 SUSTAINABILITY TARGETS

We have committed ourselves to global sustainability targets which cover seven focus areas of our business: Safety, Health & Environment (SHE), Compliance, Human Resources, Procurement, Operations, R&D, and community involvement.

### SAFETY

#### CONTINUOUS IMPROVEMENT

of our company's

#### SAFETY PERFORMANCE

Reducing annual

TOTAL CASE INJURY RATE (TCIR) to **0.38**

### RESPONSIBLE OPERATIONS

**100%** of sites are ISO 14001 certified by 2019

**60%** of sites are ISO 50001/ EMS certified by 2018

**10%** reduction\* of waste by 2018

**7%** reduction\* of waste water

**7%** reduction VOC\*\* by 2018

**3%** reduction\* of water use by 2018

### RESPONSIBLE PRODUCTS

Increase SUSTAINABILITY QUOTA for Regional Development Centers above **50%**

Keep sustainability quota for R&D above **90%**

Develop proof of concept of POLYSTYRENE DEPOLYMERIZATION including BUSINESS CASE by 2019

### COMPLIANCE

#### ALL RELEVANT EMPLOYEES

trained on ANTI-BRIBERY & CORRUPTION

#### BIENNIAL TRAINING

of entire active employee base on CODE OF CONDUCT

### RELIABLE EMPLOYER

**80%** of exempt employees to have an EMPLOYEE DEVELOPMENT INTERVIEW in 2018

Implementation of MANAGEMENT DEVELOPMENT PROGRAMS in all regions in 2017, also for senior and executive management

EMPLOYEE SURVEY for the entire workforce conducted in 2017

### RELIABLE SUPPLIER

**80%** of total supplier spend to be third-party assessed by end of 2020

**100%** of buyers trained on sustainability by end of 2017

SUSTAINABILITY to be included as a key component in SUPPLIER EXCELLENCE PROGRAM

### COMMUNITY INVOLVEMENT

#### ALL SITES, OFFICES & HEADQUARTERS

support at least one meaningful CORPORATE SOCIAL RESPONSIBILITY (CSR) PROJECT

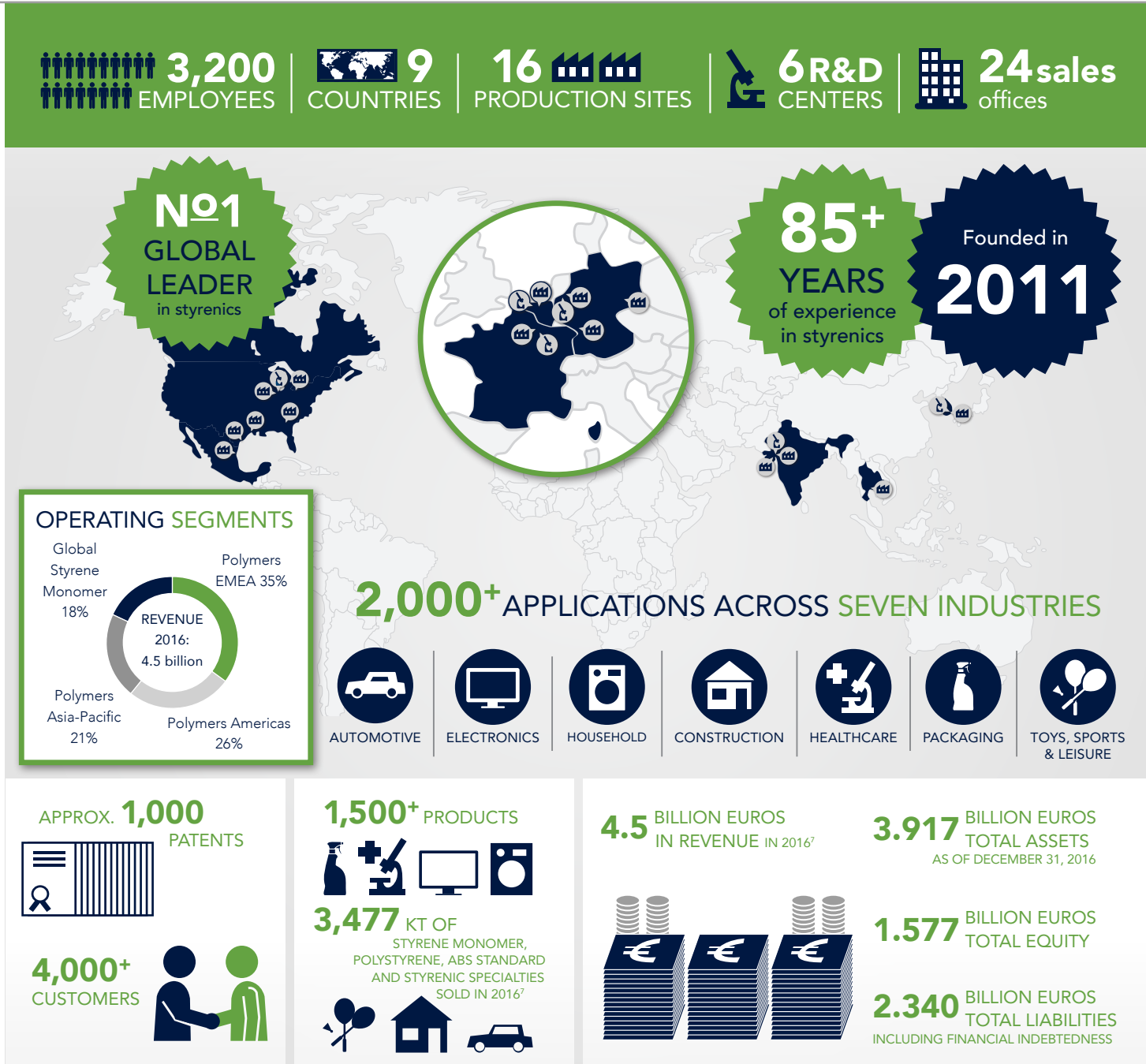
\* Baseline year 2014, \*\* VOC = volatile organic compounds, baseline year 2015

## 2.3 INEOS STYROLUTION AT A GLANCE<sup>1</sup>

INEOS Styrolution is the leading global styrenics supplier with a focus on styrene monomer, polystyrene, ABS Standard and styrenic specialties. With world-class production facilities and more than 85 years of experience, INEOS Styrolution helps its customers succeed by offering the best possible solutions, designed to give them a competitive edge in their markets. The company provides styrenics applications for many everyday products across a broad range of industries, including Automotive, Electronics, Household, Construction, Healthcare, Packaging, and Toys, Sports & Leisure. In 2016, sales were at 4.5 billion euros. INEOS Styrolution employs approximately 3,200 people, operates 16 manufacturing sites in Canada, Mexico, USA, Belgium, France, Germany, India, Korea and Thailand with six R&D centers and 24 sales offices around the globe.

INEOS Styrolution has four headquarters around the world – the global and EMEA headquarters for Specialties in Frankfurt am Main, Germany, the EMEA headquarters for commodities and standard products in Rolle, Switzerland, the American headquarters in Aurora, USA, and the Asia-Pacific headquarters in Singapore.

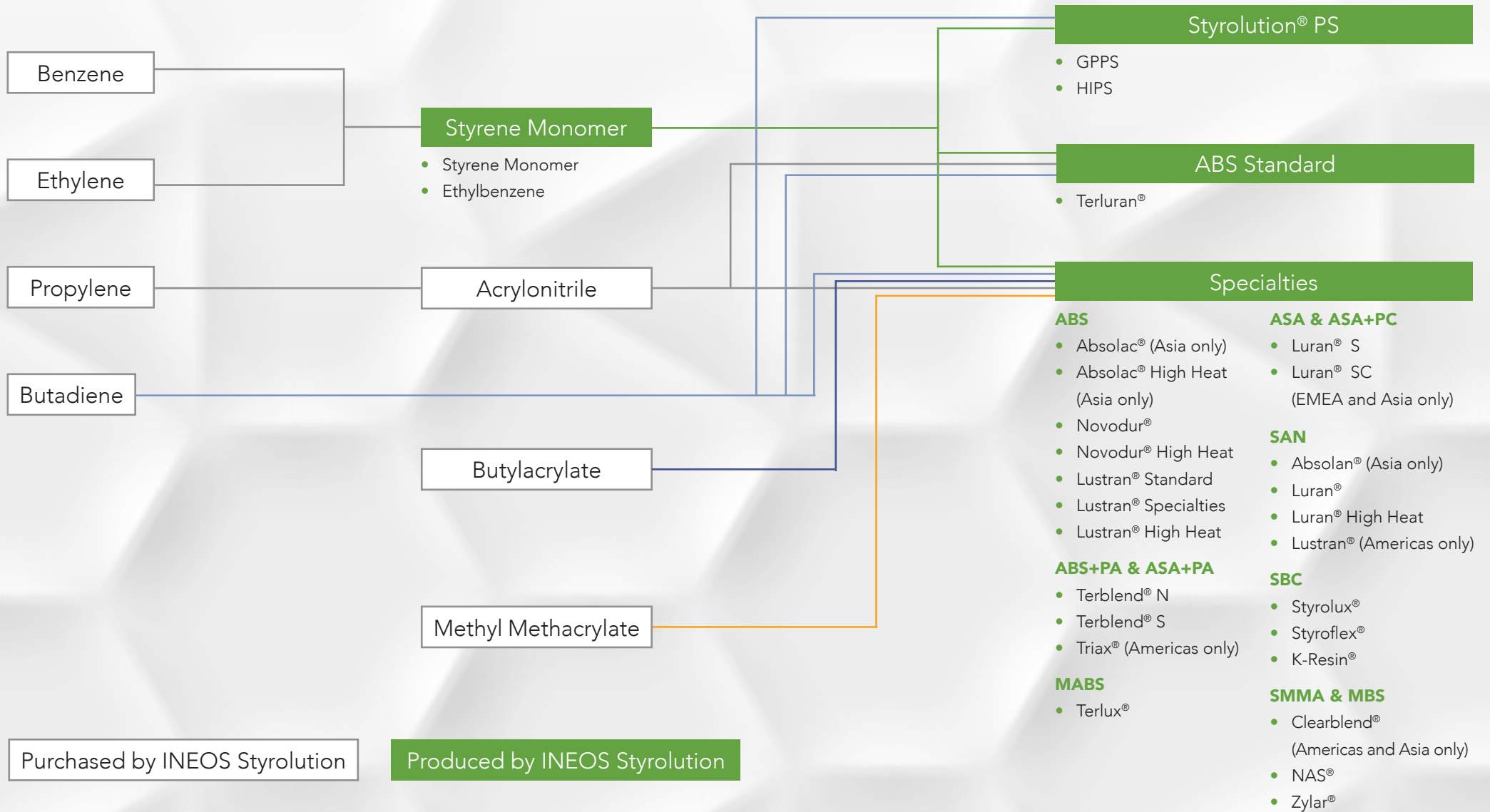
INEOS Styrolution's operations are grouped into four operating segments (see infographic). The segments are supported by central departments that provide various services on a global or regional level. The consolidation of our accounts includes all entities within INEOS Styrolution. For the avoidance of doubt, this excludes activities of INEOS ABS, Addyston, USA, as we only provide distribution services for the INEOS ABS produced products, for which we receive a fee. Our recently acquired production site in Yeosu, South Korea, is also excluded from this report as the acquisition was only completed on February 27, 2017.



<sup>1</sup> G4-3/-4/-5/-6/-8/-9/-17

INEOS Styrolution product groups and product lines of styrene monomer, polystyrene, ABS Standard and styrenic specialties:<sup>1</sup>

## PRODUCT SCOPE IN THE STYRENIC VALUE CHAIN



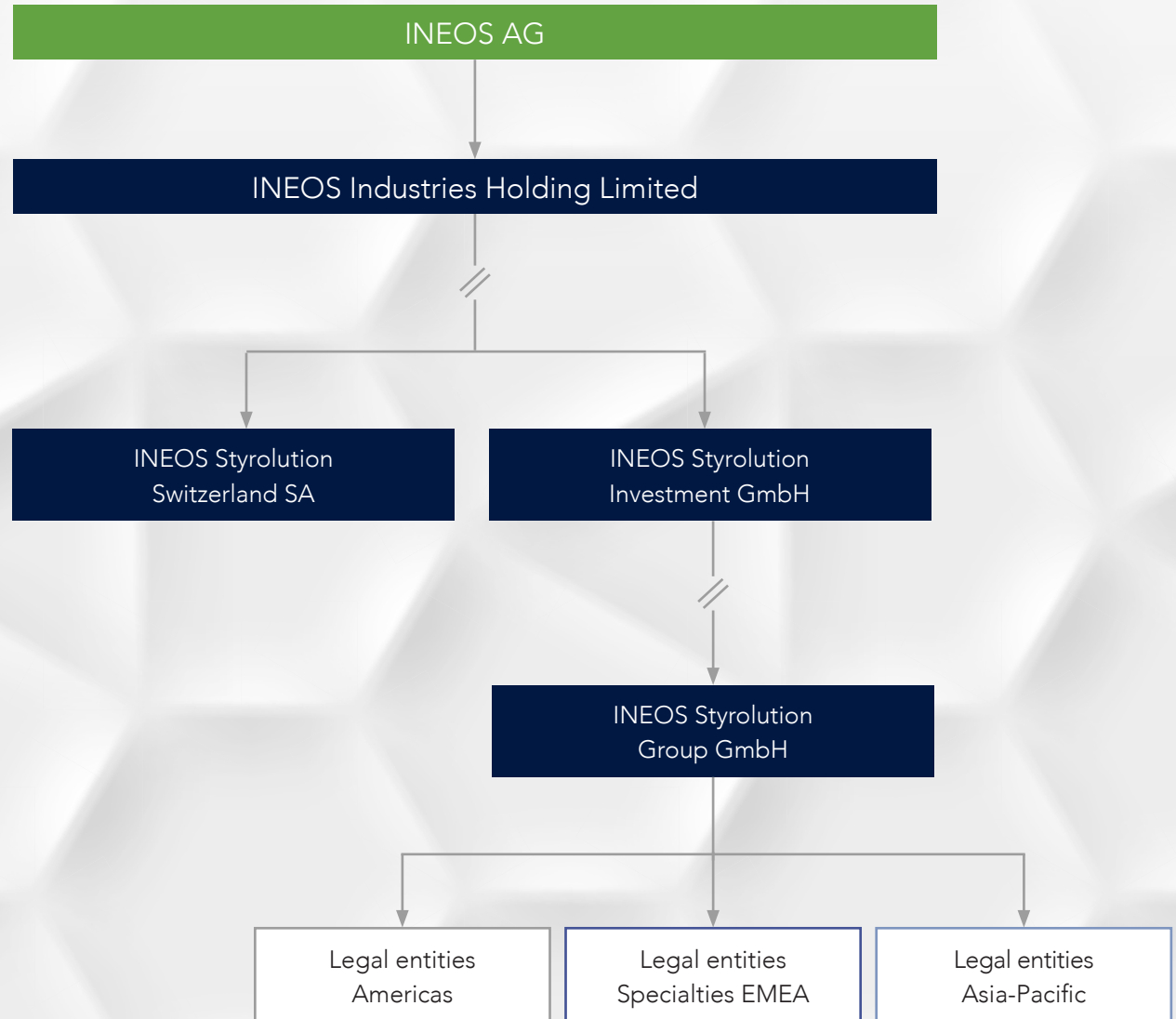
**OWNERSHIP**

INEOS Styrolution is wholly owned by INEOS AG. The company Styrolution was founded October 1, 2011, as a 50:50 joint venture between the two shareholders, INEOS AG and BASF SE. In November 2014, INEOS acquired BASF's 50% share in Styrolution. Since then, the company has operated as a stand-alone business within INEOS. On January 18, 2016, the company changed its name to INEOS Styrolution to reflect its ownership by INEOS.

**SIGNIFICANT CHANGES IN THE MANAGEMENT BOARD IN 2016<sup>1</sup>**

Effective October 2016, Markus Fieseler was appointed as the company's Chief Financial Officer (CFO). Prior to his current role, Markus Fieseler was CFO of BASF Mexico and Central America & the Caribbean. Over the course of his 24-year career, Markus Fieseler held various management positions in finance, controlling and accounting at BASF SE. He succeeded Christoph de la Camp, who elected to leave INEOS Styrolution effective June 2016.

**OWNERSHIP OVERVIEW<sup>2</sup>**



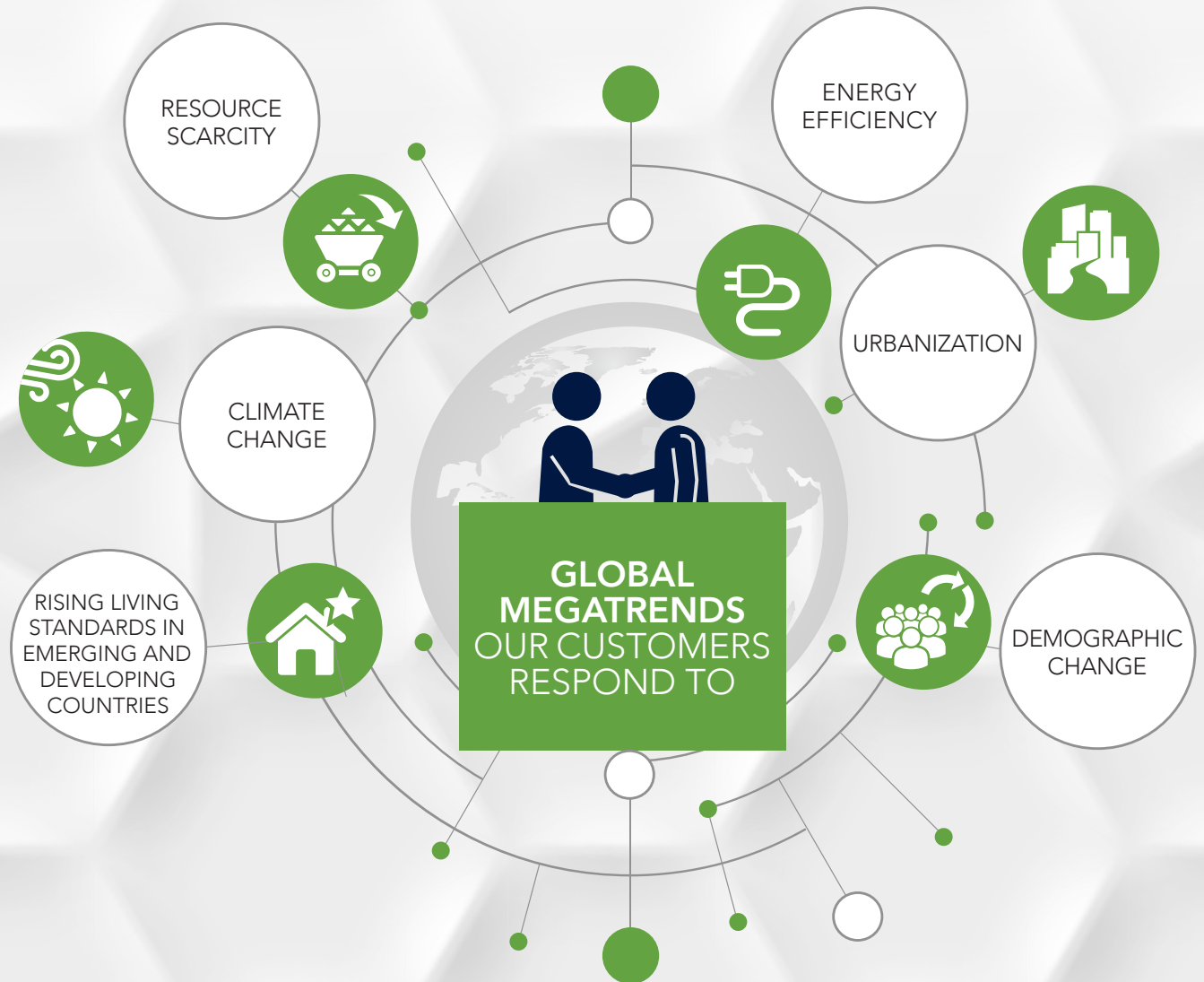
## 2.4 HOW WE DEFINE SUSTAINABILITY

INEOS Styrolution bases its definition of sustainability on "Our Common Future", the 1987 report of the World Commission on Environment and Development, which states: "Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs."

### THINK AND ACT RESPONSIBLY TODAY – FOR A BETTER TOMORROW

Applying this definition, INEOS Styrolution intends to operate and develop its business in a way that balances our current and future needs, taking into account economic, environmental and social factors so that we can sustain and further grow our business in the long term.

## OUR FOCUS INDUSTRIES ARE DRIVEN BY SUSTAINABLE MEGATRENDS SUCH AS ...



## 2.5 THE VISION AND MISSION OF OUR SUSTAINABILITY PROGRAM

### A CLEAR, AMBITIOUS VISION

As the global market leader in styrenics, together with our stakeholders, we aspire to drive styrenics for sustainable applications and, thus, drive our company's success. We are convinced that sustainable styrenics and styrenic innovations can offer exciting solutions to address the challenges the world is currently facing, such as environmental and climate protection and accommodating rising living standards in emerging countries. Moreover, we place strong emphasis on safe and resource-efficient production, on valuing and respecting our employees, on fostering trusted and transparent relationships with our business partners and the communities we operate in.

INEOS Styrolution supports the shift to a circular economy. We believe in the objective of the circular economy of preserving resources by applying a holistic approach that takes into account the total consumption of all resources over a product's full life cycle, the long-term environmental and societal benefits over a product's use phase, and at the same time aiming to prevent the leakage of waste into the environment.

We strive to be active contributors in developing innovative and sustainable solutions in the different aspects of a product's life cycle, from the extraction of natural resources through to the end of life of the product when its embedded

## OUR MISSION



resources can be recovered or reintroduced into the product's life cycle.

[More information on current projects that promote circularity can be found in chapter 3 "Responsible products".](#)

As a leader in the styrenics industry, INEOS Styrolution is committed to meeting discerning standards in terms of sustainability. For us, this is a business decision, as we are convinced that accomplishing long-term success together with our stakeholders can only result from truly sustainable business management.

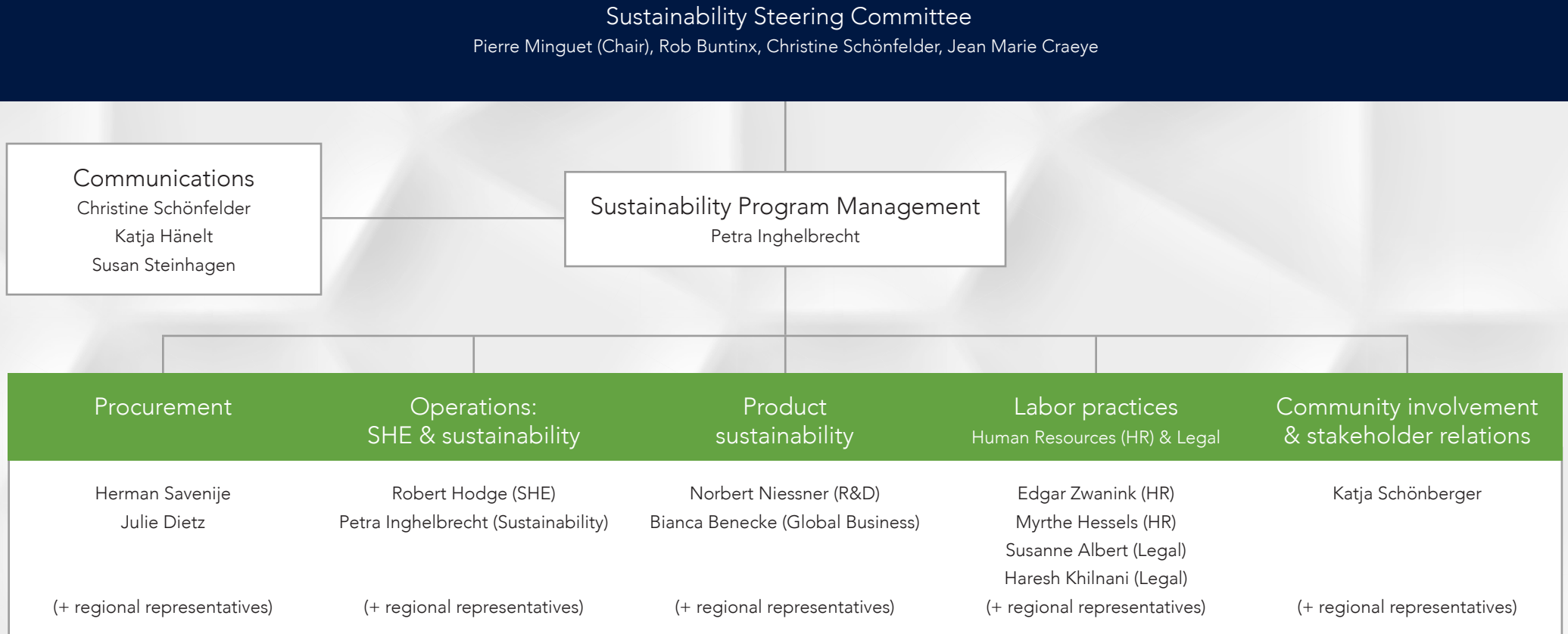
## 2.6 SUSTAINABILITY TEAM AND WORKING STRUCTURE<sup>1</sup>

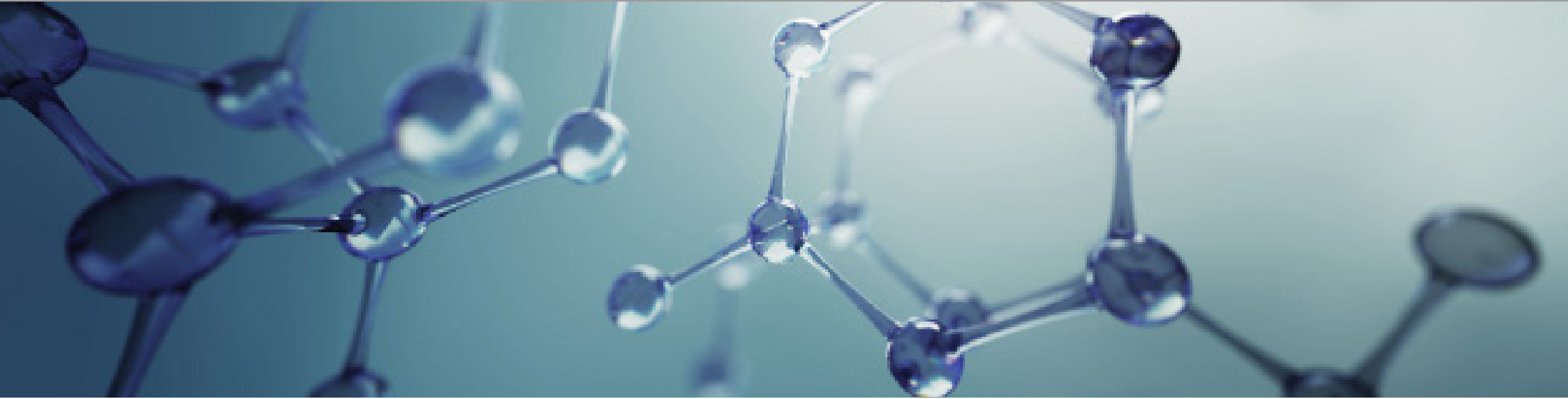
### THE SET-UP OF INEOS STYROLUTION'S SUSTAINABILITY PROGRAM

We have a dynamic team that manages our sustainability efforts across all our business areas. For each business area listed below, we have established a work stream staffed with

global and regional experts, driving the implementation of our sustainability vision and mission. The responsibility for steering and aligning our company-wide sustainability strategy lies with our steering committee at board level. The steering committee sets targets, gives strategic guidance,

creates and implements initiatives and ensures top management backing. Moreover, the team is supported by an internal ambassador group, formed by INEOS Styrolution colleagues of all functions, regions and levels. It is their role to promote sustainability within and outside of INEOS Styrolution.





## 2.7 GRI REPORTING

### 2.7.1 REPORT METHODOLOGY<sup>1</sup>

INEOS Styrolution's second sustainability report is based on the principles of the Global Reporting Initiative's (GRI) fourth-generation (G4) sustainability reporting guidelines at the 'core' level. The Global Reporting Initiative is a non-profit organization established in 1997. It provides guidelines for companies' and organizations' voluntary reporting on their economic, environmental and social activities.

The collected data provides an overview of INEOS Styrolution's sustainability efforts between January 1 and December 31, 2016, and covers the activities of all legal INEOS Styrolution entities worldwide, which fell within the scope of the company's consolidated financial statements as of

December 31, 2016. For the avoidance of doubt, this excludes activities of INEOS ABS, Addyston, USA<sup>4</sup> and the K-Resin® SBC business in Yeosu, South Korea, which we acquired on February 27, 2017.

The financial information presented in this report is consistent with the company's audited consolidated financial statement and management report for the year ending December 31, 2016, which was prepared in accordance with International Financial Reporting Standards (IFRS) and interpretations.

Following the release of our first GRI report on sustainability "Living Sustainability. Together." in 2016, we continue our focus on transparent disclosure and have added new indicators for our reporting year 2016. In this report, we have published global sustainability targets covering seven focus areas of our business: SHE, Compliance, Human Resources, Procurement, Operations, R&D, and community

involvement. These targets underscore our commitment to continuous improvement and higher transparency. We intend to follow an annual reporting cycle, providing disclosure on our sustainability-related policies, practices and programs as well as track our progress in achieving these targets. The content of this second GRI report has been validated by all internal stakeholders accountable for INEOS Styrolution's sustainability strategy and performance, including the management board. An external review is intended at a later stage.

[The GRI G4 Content Index is based on the principles of the 'core' option and can be found at the end of this report.](#)

[For more information please contact Petra Inghelbrecht, Global Sustainability Manager.](#)

### 2.7.2 MATERIALITY ANALYSIS, IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES

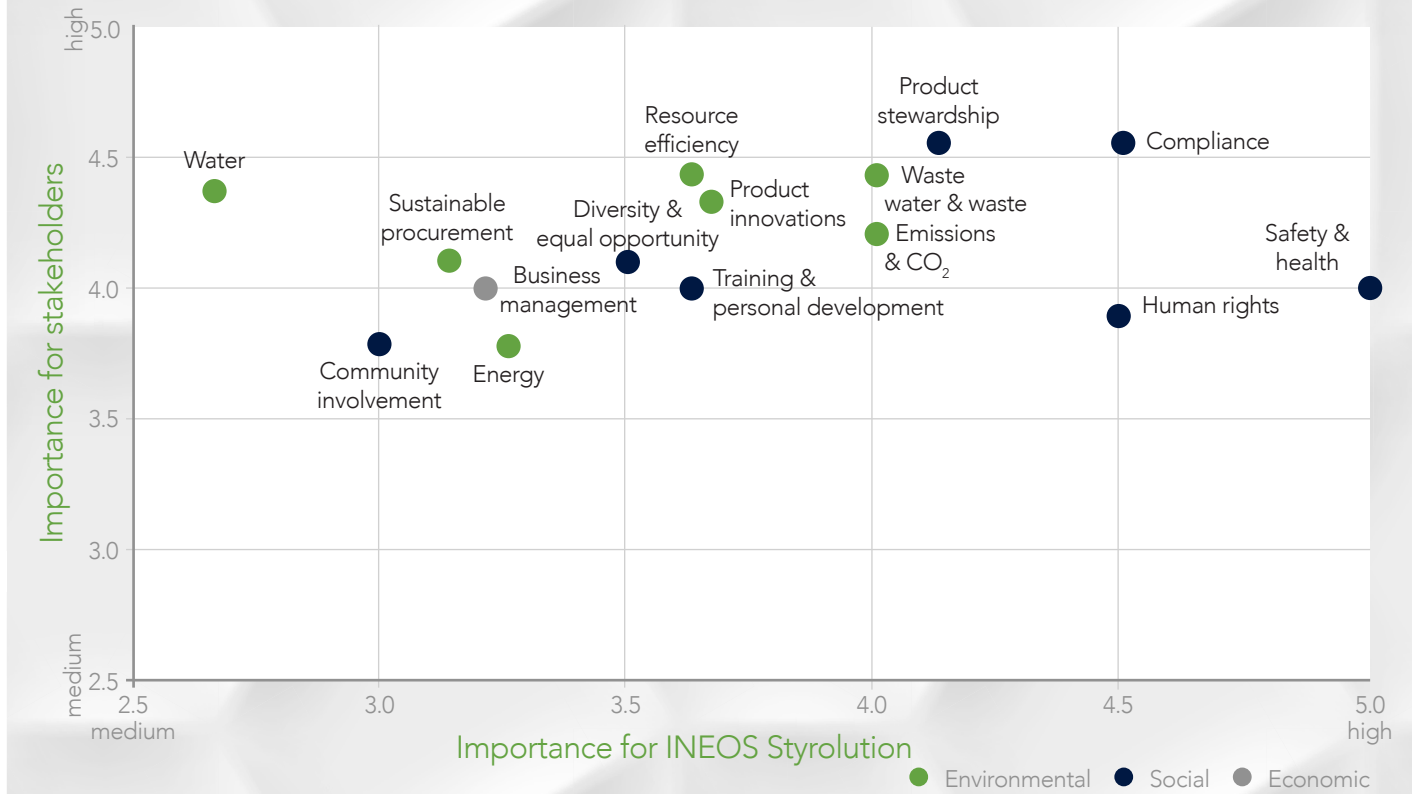
In order to implement an effective approach to sustainability management and to ensure that our sustainability strategy addresses the expectations of our stakeholders, we undertook a materiality analysis with internal and external key stakeholders in 2014/ 2015 to identify, prioritize, validate and review relevant sustainability issues. No changes were deemed necessary in 2016.

#### MATERIALITY ASSESSMENT PROCESS<sup>1</sup>

The preselection of material aspects was carried out by the company’s sustainability team. Opting for a focused, effective approach, the team concentrated on particularly relevant sustainability aspects for INEOS Styrolution and which they deemed to be most pertinent to our stakeholders. The team also examined external benchmarks for the potential economic, environmental and social impacts INEOS Styrolution has, and then preselected the 15 most important sustainability topics from the broad list of GRI material aspects.

Key internal and external stakeholders were identified, based on their impact on our business operations and their knowledge of our business activities. The sustainability team then conducted a quantitative survey among employees from different management levels and regions, key customers and suppliers, investors, and interest groups to assess which topics they find material for our sustainability program.

### MATERIALITY OF SUSTAINABILITY TOPICS, AS PRIORITIZED BY INEOS STYROLUTION AND ITS STAKEHOLDERS<sup>2</sup>



The outcome of this study was assessed by our sustainability team and relevant departments, as well as evaluated and compared to peer industry organizations by an external party. The internal and external findings were incorporated into an assessment matrix, discussed with the management board in depth, and evaluated in light of the company’s objectives, strategy and current development targets.

The materiality matrix above summarizes these aspects, which have been translated into GRI indicators for external reporting. The results of the materiality assessment will be reviewed and approved by internal and external stakeholders on a biennial basis to confirm relevance and appropriateness.

**MATERIAL ASPECTS, BOUNDARIES AND ACTION PRIORITY AREAS ALONG THE VALUE CHAIN**

(within<sup>1</sup> and outside<sup>2</sup> our organization)

Matching our stakeholders' expectations against our own assessment helped us more thoroughly understand our sustainability performance across all of our activities, where actions need to be prioritized in terms of the material

aspects, and which topic areas we can influence with our actions. Along the value chain, we have the possibility to take action with respect to the following aspects:

	MATERIALITY TOPICS	GRI SUSTAINABILITY TOPICS	DEFINITION	LINK TO CHAPTER	ASPECT BOUNDARIES		
					Suppliers	Production	Customers
ENVIRONMENTAL	Resource efficiency	Materials	Management of our materials: Reduce the use of raw materials	<a href="#">Responsible operations + Sustainable products</a>	●	●	●
	Energy	Energy	Use of fossil fuels, electricity and other imported utilities (steam, etc.)		●	●	
	Water (use)	Water	Use of drinking water, surface water and well water for production		●		
	Emissions & CO <sub>2</sub> (& NO <sub>x</sub> )	Emissions	Carbon dioxide emissions from our sites, caused by the use of energy and other greenhouse gas emissions such as CFCs – other air emissions such as combustion gases and volatile organic compounds		●	●	●
	Waste water & waste	Effluents & waste	Includes waste water discharged at our sites and waste		●		
	Product innovation	Products & services	Optimize the resource efficiency of our products for our customers through innovation	<a href="#">Sustainable products</a>	●	●	
	Sustainable procurement	Supplier environmental assessment	Procurement management that respects environmental and social criteria	<a href="#">Sustainable procurement</a>	●		

	MATERIALITY TOPICS	GRI SUSTAINABILITY TOPICS	DEFINITION	LINK TO CHAPTER	ASPECT BOUNDARIES		
					Suppliers	Production	Customers
SOCIAL	Safety & health	Occupational health & safety	Ensure safety and health of our employees and contractors, strive for zero incidents	<a href="#">Responsible operations</a>	●	●	
	Product stewardship	Customer health & safety Product & service labeling	Quality, health and safety of our products	<a href="#">Sustainable products</a>	●	●	●
	Compliance	Anti-corruption Anti-competitive behavior Grievance mechanisms	Compliance to local and international standards on business ethics	<a href="#">Compliant business partner</a>	●	●	
	Human rights	Child labor Forced or compulsory labor			●	●	
	Training & personal development	Training & education	Training of employees, giving performance review and supporting people development	<a href="#">Responsible employer</a>		●	
	Diversity & equal opportunity	Diversity & equal opportunity	Respecting diversity, equality of gender, nationality, religion and age			●	
	Community involvement	Local communities	Contribution and support to local communities on environmental or social topics	<a href="#">Community involvement</a>	●	●	●
ECONOMIC	Business management	Economic performance	Ensuring economic success of the company	<a href="#">Responsible business management</a>		●	●

### 2.7.3 STAKEHOLDER DIALOGUE AT INEOS STYROLUTION

Engaging stakeholders and developing meaningful partnerships with them over time is essential for our long-term business success. We realize that regular, open and proactive dialogue with all relevant stakeholders helps us to understand their perspectives, expectations, key issues and needs. In this way, we are able to integrate them into our business decision-making processes wherever possible, ensuring that our strategy addresses the issues that are important to them. At the same time, a dialogue with stakeholders gives us the opportunity to explain our clear and committed approach to

sustainability as well as the value of our work, and our products and services for society.

#### IDENTIFICATION AND SELECTION OF STAKEHOLDERS<sup>1</sup>

Stakeholders in INEOS Styrolution’s business activities include our customers, suppliers, employees, investors, financial experts and rating agencies, local communities, associations, universities, scientific institutions and external partners.

We have identified our key stakeholders as those who contribute to our economic, social and environmental performance. These are, for example, our investors, who are not only interested in our short-term but also in our long-term performance, our customers, who rely on our products and services and with whom we co-develop innovative applications, our suppliers, who are an integral part of our styrenics value chain and with whom we closely interact to deliver high performance sustainable products, as well as our employees, whose continued engagement is tied to the continued success of INEOS Styrolution. Other stakeholders include the local communities around our factories and offices, industry associations that represent our interests as well as the interests of the chemical industry as a whole, and universities, scientific institutions and external partners, with whom we collaborate to develop new solutions that meet our customers’ demands.

#### STAKEHOLDER GROUPS ENGAGED<sup>2</sup>



#### APPROACH TO STAKEHOLDER ENGAGEMENT<sup>3</sup>

**INVESTORS, FINANCIAL EXPERTS AND RATING AGENCIES**  
We aim to provide clear insights into the company through transparent and continuous dialogue with investors, analysts and rating agencies. In doing so, we maintain the trust they have placed in us.

During our annual investor days in London and New York, our top management gives presentations and engages in Q&A sessions as well as one-on-one meetings for institutional investors. Furthermore, we provide regular information about our business performance, market and corporate developments and our outlook in interim financial reports, quarterly conference calls, ad-hoc disclosures and investor relations releases to registered investors.

In addition to our routine close dialogue with the capital markets, we also surveyed stakeholders in the capital market to evaluate our investor relations performance. The results suggest a high level of satisfaction with the quality of our investor relations work. We also provided our sustainability-oriented investors with information on the strategy of our sustainability program and the most important fields of our sustainability activities.

### **CUSTOMERS**

True to our claim "Driving Success. Together.", we take pride in working with our customers to help them achieve their business objectives. We position sustainability at the center of all of our business management activities and aim to facilitate the sustainability efforts of our customers in the same way. Serving customers goes beyond providing top-quality styrenic products and services. The essence of our commitment includes providing clear and accurate disclosure of all relevant information, maintaining a proactive direct interaction with our customers on a regular basis as well as collaborating on issues of mutual interest.

We work closely with our customers by offering services ranging from innovation workshops to development support and co-development projects to solve technical and performance challenges. We carefully listen to our customers' needs, constantly search for new, valuable ideas and actively drive innovations and technologies in line with megatrends to give our customers a competitive edge in their markets. These needs increasingly involve the development of sustainable solutions, be it manufacturing eco-friendly end-products that can be recycled or finding ways to reduce the environmental footprint of production processes.

Annual innovation workshops with key customers of each industry help us to not only prioritize and address aspects material to our business, but also explore new sustainable solutions to our customers.

[More on this topic can be found in chapter 3 "Responsible products".](#)

### **SUPPLIERS**

We believe that constant engagement and communication with our suppliers is essential for a longstanding partnership and mutually beneficial growth and success. To foster our sustainability standards along the styrenics supply chain, we choose our suppliers carefully and expect full compliance with our Supplier Code of Conduct, which outlines our minimum requirements for supplier behavior regarding sustainable business management. We continuously evaluate opportunities to improve operational processes and positively affect supply chain collaboration. For instance, we work with select logistics service providers to measure and improve environmental performance, such as reduction of CO<sub>2</sub> emissions.

[More information on our dialogue with our suppliers can be found in chapter 6 "A reliable partner to suppliers".](#)

### **EMPLOYEES**

A committed employee base is our company's most important asset and key to realizing our business and sustainability vision and mission. We successfully work together as a global team based on the principles of open dialogue, transparency, reliability and mutual trust.

We regularly update our colleagues worldwide on important developments, providing information regarding strategic issues, business performance, policies, IT security, new developments and personnel changes as well as topics such as research, innovation and sustainability. We pay special attention to safety and health and communicate safety standards and train employees on safe practices on a regular basis. We engage with our employees and contractors in many forms to keep safety, health and environment (SHE) core to their work approach. We seek their input and feedback for a safer workplace, for example with our behavioral-based safety observation (BBSO) program, where colleagues can share concerns and give constructive feedback in order to ensure safe working conditions.

For internal communications, we use various communication channels and media, such as town hall meetings, eMagazines, eNewsletters, intranet articles, email and video messages from our CEO and management board, posters, flyers, workshops, webinars and presentations on training materials, microsites on specific topics – either accessible on our company intranet page, or distributed globally via email so that employees do not miss important information. We also ask our employees to share their ideas, experience and opinions to take an active role in shaping their immediate work environment. In 2016, the management board decided that the company would undertake a global employee survey covering all employees from all functions and locations. The survey, conducted in 2017, was completely anonymous and covered topics, such as leadership and management, working conditions, work-life balance, recognition and remuneration, communication as well as professional development.

Furthermore, we invest in their skills and knowledge, offering opportunities to grow and develop professionally and stimulate collaboration by submitting innovative ideas and projects for our innovations (INA) and outstanding ideas (IDA) awards. Actions such as these support identification and help create employee pride and motivation. We also use different platforms for direct employee engagement on global, regional and local levels. Regarding important corporate developments, we actively involve our employees in dialogue and encourage open discussion. These include group conferences, regional and subject-matter-specific formats such as our regular sustainability ambassador meetings and conference calls, workshops, town hall- and work council meetings.

We organize annual family days at various sites and offices to show our appreciation to our employees' families as well as to create a better bond with the company their family members work for.

[You can find more information about our employees in chapter 5 "INEOS Styrolution as a reliable employer".](#)

### ASSOCIATIONS<sup>1</sup>

Alongside our business operations, we hold membership in various national and international industry associations, for example, the European Chemical Industry Council (Cefic) and PlasticsEurope, the Chinese International Chemical Association (AICM), which is a member of the International Council of Chemical Associations (ICCA), the Styrene Information & Research Center (SIRC), the Plastic Food Packaging Group in the American Chemistry Council, the World Plastic Council as well as local community advisory

panel organizations in Canada, Mexico and USA. Together with industry associations, we seek to drive high and well-designed sustainability standards in our industry. In cooperation with PlasticsEurope, we are fully committed to Operation Clean Sweep (OCS), an industry response to help combat the growing issue of marine litter by preventing plastic pellet loss during production and transportation.

Due to active and regular participation in industry associations, we contribute to constructive dialogue with professionals from business, science, government and the public sector.

[More on Operation Clean Sweep can be found in chapter 4 "Responsible operations at INEOS Styrolution".](#)

### UNIVERSITIES, SCIENTIFIC INSTITUTIONS AND EXTERNAL PARTNERS

We work jointly with universities, leading institutes and partners to develop new solutions that meet our customers' demands. For example, INEOS Styrolution collaborates with Neue Materialien Bayreuth GmbH and the University of Bayreuth – partnerships that allow us to pursue front-line development projects, such as **StyLight®**, our novel high-performance thermoplastic composite. With weekly phone calls and quarterly face-to-face meetings, this partnership goes well beyond traditional collaborative efforts. Further partners such as Süddeutsches Kunststoffzentrum, Washington State University and Fraunhofer LBF help us drive the development of customer-centric solutions.

We see our partnerships as a way to steadily grow our innovation pipeline in both size and value, especially when it comes to creating styrenics solutions that contribute to a sustainable

future. Our partnerships contribute to achieving significant R&D results that will drive INEOS Styrolution's position further as an innovation leader.

### LOCAL COMMUNITIES

INEOS Styrolution is committed to developing long-term and positive relationships with our local communities. We are aware of our social responsibility and strive to make a difference in the communities we operate in.

INEOS Styrolution believes that community engagement is best led locally. Our employees serve as representatives to local advisory committees that meet regularly with their stakeholders to discuss solutions to issues the community might face, as well as provide recommendations and assistance. At the local level, we also drive initiatives that support the health and well-being of young and disadvantaged children and support charity, sports and education programs. These initiatives are driven by our employees living and working in these communities.

[More on our community involvement initiatives can be found in chapter 8 "Community involvement".](#)

3.0 RESPONSIBLE PRODUCTS

# SHAPING THE FUTURE: **SUSTAINABLE STYRENIC** SOLUTIONS

Our products are used across a broad range of industries, delivering sustainable benefits to both our customers and society as a whole.



### 3.1 OUR MISSION: DRIVING SUSTAINABLE STYRENICS

We design our products to make a valuable contribution for our customers and the society. We achieve this by taking a responsible approach to our product portfolio along the entire value chain – from procurement, development and production to transport and sales, and from integration into customer processes to intended use. We want to offer styrenic solutions that deliver a strong sustainability performance and render our customers’ businesses as well as end consumers’ choices more sustainable. Together with customers and the scientific community, we engage in collaborative innovation of cutting-edge sustainable products. By driving product stewardship and quality management, we ensure compliance with product regulations and deliver safe, best-quality and high-performance products to our customers. Together with associations and our business partners, we strive to achieve high and well-acknowledged sustainability standards in the styrenics industry.

#### OUR SUSTAINABILITY TARGETS FOR RESPONSIBLE PRODUCTS

In order to show our commitment to further provide our customers with improved sustainable solutions and to support circularity of our business, we now have defined global sustainability targets, which we will report annually to disclose our progress. For product sustainability, we strive to bring our sustainability quota for regional development centers (RDCs) above 50% and keep the quota for global R&D above 90% by 2018. In addition, we are working on a circular economy proof of concept for polystyrene depolymerization including a respective business case by 2019.

### 3.2 STYRENICS: A MULTI-TALENTED MATERIAL WITH SUSTAINABLE BENEFITS<sup>1</sup>

As the market leader in styrenics, INEOS Styrolution’s business is guided by global megatrends, such as urbanization, demographic changes, scarcity of resources, and the increasing importance of healthy lifestyles and food safety. These challenges are shaping the evolution of various industries and highlighting the need for sustainable applications. Energy-efficient, lighter-weight automotive parts and resource-efficient, durable construction materials are just two examples of this.

Styrenics offer sustainable solutions to these demands, mainly due to the inherent properties of this versatile material. For example, styrenics are durable and weather-resistant, making them a longer-lasting alternative to other materials. They also have a low density and a high

stiffness compared to other engineering plastics, which allows the manufacture of lightweight applications with reduced transportation costs and fuel emissions. Styrenics can be thermally or post-consumer recycled without significant loss of properties. When it comes to processing, styrenics offer even more benefits in terms of sustainability. They can be processed at moderate temperatures within a broad temperature range. Due to their amorphous character, styrenics consume less energy during processing and cooling compared to engineering plastics, such as polyamides or polyesters. Most styrenics require no or only moderate pre-drying. Their processing window is broad and hence processing behavior is versatile. Not only does this result in cost savings for our customers, it also significantly reduces the use of process additives.

**KEY HIGHLIGHTS 2016**

**SUSTAINABILITY**  
integrated into all  
**CUSTOMER WORKSHOPS**

**SUSTAINABILITY TARGETS**

Increase **SUSTAINABILITY QUOTA** for Regional Development Centers above **50%**

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Keep sustainability quota for **R&D** above **90%**

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Develop proof of concept of **POLYSTYRENE DEPOLYMERIZATION** including **BUSINESS CASE** by 2019

## SUSTAINABLE SOLUTIONS FOR A BROAD RANGE OF INDUSTRIES

Our high-performance products are used across a wide variety of industries:

<b>DRIVING SUSTAINABLE INNOVATIONS</b> 	<b>STYRENICS TO BUILD ON</b> 	<b>STYRENICS FOR SAFE AND RELIABLE HEALTHCARE APPLICATIONS</b> 	<b>STYRENICS IN YOUR HOME</b> 	<b>ENABLING ELECTRONIC DEVICES OF TODAY AND TOMORROW</b> 	<b>STYRENICS FOR SAFE AND HYGIENIC PACKAGING</b> 
<p>Our styrenics are attractive for manufacturers along the entire automotive value chain.</p>	<p>Although INEOS Styrolution's materials are not always immediately recognizable where we live and work, they play an essential role in the building and construction industry.</p>	<p>INEOS Styrolution healthcare applications offer a wide range of benefits to our customers and end-consumers.</p>	<p>Our styrenics offer various advantages making them the material of choice for a vast number of household products.</p>	<p>Our styrenics product portfolio is versatile and provides a wide range of optimized solutions for our customers.</p>	<p>Our packaging product portfolio offers suitable materials for everything – from food packaging films to cups for beverages and fruits.</p>
<p><b>SUSTAINABLE BENEFITS:</b></p>	<p><b>SUSTAINABLE BENEFITS:</b></p>	<p><b>SUSTAINABLE BENEFITS:</b></p>	<p><b>SUSTAINABLE BENEFITS:</b></p>	<p><b>SUSTAINABLE BENEFITS:</b></p>	<p><b>SUSTAINABLE BENEFITS:</b></p>
<ul style="list-style-type: none"> <li>• Superior performance and physical durability</li> <li>• Outstanding surface aesthetics due to low shrinkage and warpage</li> <li>• Low density compared to other engineering plastics making our styrenics a sustainable solution for lightweight parts, thus, helping minimize vehicle weight, and in turn increasing fuel efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Technical benefits, such as UV stability at moderate cost</li> <li>• Thermal insulation and high performance over a long life</li> </ul>	<ul style="list-style-type: none"> <li>• Excellent impact strength, chemical resistance and ease of processing</li> <li>• Utmost quality standards and commitment to product safety</li> <li>• Various healthcare packages meeting the most comprehensive set of regulatory standards</li> </ul>	<ul style="list-style-type: none"> <li>• Exceptional aesthetics provide excellent color consistency and high gloss</li> <li>• Chemical and hot water resistance, stiffness and toughness</li> <li>• With high-quality products and cost-efficient production processes, we make technology more affordable for a broader population in developed and emerging markets</li> </ul>	<ul style="list-style-type: none"> <li>• Styrenics make electrical and electronic devices safer, lighter and more durable</li> <li>• Cost-efficient processability makes devices made from styrenics more affordable</li> <li>• Lower processing temperature makes production processes more efficient</li> <li>• Chemical resistance, stiffness, toughness, aesthetic surfaces and high dimensional stability</li> </ul>	<ul style="list-style-type: none"> <li>• Keeps food fresher for a longer time which, in turn, helps reduce waste</li> <li>• Hygienic packaging materials ensure taste and quality of the foods remain unaffected</li> </ul>
<p>Click here to read more about our <a href="#">automotive highlight examples</a> or view our <a href="#">sustainable solutions for the automotive industry</a>.</p>	<p>Click here to read more about our <a href="#">construction highlight examples</a> or view our <a href="#">sustainable solutions for the building and construction industry</a>.</p>	<p>Click here to read more about our <a href="#">healthcare highlight examples</a> or view our <a href="#">sustainable solutions for the healthcare industry</a>.</p>	<p>Click here to read more about our <a href="#">household highlight examples</a> or view our <a href="#">sustainable solutions for the household industry</a>.</p>	<p>Click here to read more about our <a href="#">electronics highlight examples</a> or view our <a href="#">sustainable solutions for the electronics industry</a>.</p>	<p>Click here to read more about our <a href="#">packaging highlight examples</a> or view our <a href="#">sustainable solutions for the packaging industry</a>.</p>

### 3.2.1 TAKING SUSTAINABILITY INTO ACCOUNT FROM THE START

We place great importance on a responsible approach to our product portfolio along the entire value chain. To monitor and report on our progress, we developed a sustainability screening tool, an easy-to-use online system that allows us to identify the impact of new products throughout their whole development cycle until successful launch and societal benefits during their use phase. As not only products but also major application developments are evaluated analogously, the whole innovation pipeline can be measured against its sustainability impact.

The screening tool is based on a multi-criteria analysis evaluating new solutions in terms of their sustainability footprint. The

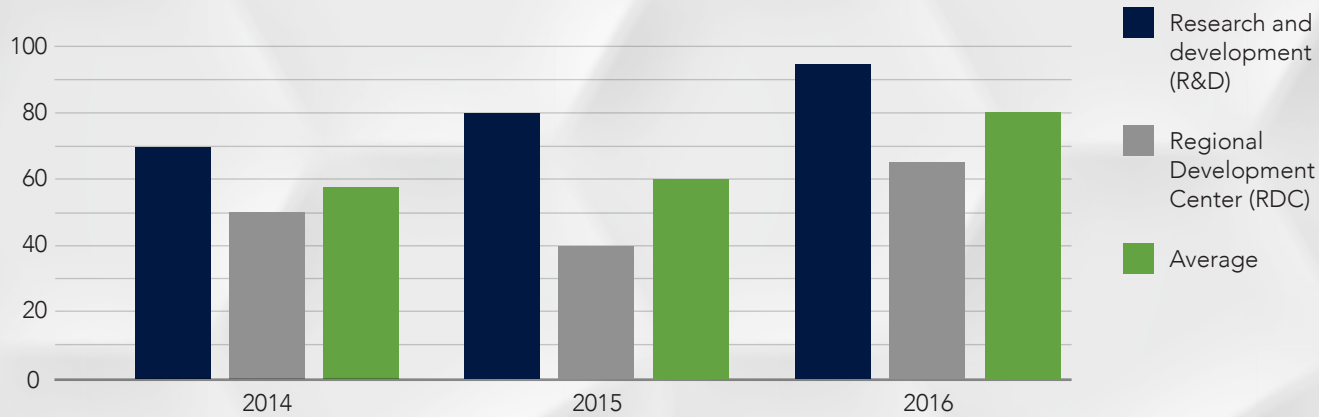
criteria include material and energy savings during production as well as in application, the ability to be recycled, the toxicological profile and the emission of volatile organic compounds.

After this assessment, the new product or product application can be adjusted or further improved and may even be scored for advanced sustainability as the project progresses.

**GLOBAL R&D/ IP MAINTAINED ITS HIGH LEVEL OF OVER 90% OF PROJECTS WITH POSITIVE SUSTAINABILITY IMPACT. THE NUMBER OF REGIONAL DEVELOPMENT PROJECTS WITH SUSTAINABILITY IMPACT INCREASED TO OVER 50% COMPARED TO THE PREVIOUS YEAR.**

A comprehensive analysis of all global R&D and regional development projects in our innovation pipeline undertaken in 2016 shows that our Global R&D/ Intellectual Property unit, which drives fundamental, mid-to-long-term oriented developments, maintained its high level of more than 90% of projects having a positive sustainability impact. Regional development projects that deal with short-to-mid-term developments showed an improved sustainability profile of more than 50% in the course of 2016.

### PROJECTS DRIVING SUSTAINABILITY



### 3.2.2 MATERIAL SOLUTIONS THAT ENHANCE OUR CUSTOMERS' PRODUCT SUSTAINABILITY

#### DRIVING SUSTAINABLE INNOVATIONS – AUTOMOTIVE HIGHLIGHT EXAMPLES

#### LURAN® HH-120 FOR LIGHTWEIGHT HIGH-GLOSS CAR SOLUTIONS



**LURAN HH-120 IS 10% LIGHTER THAN TRADITIONAL MATERIALS**

This material solution is 10% lighter than PMMA or other traditional materials. A car with six pillar covers made from Luran HH-120 saves about 90 grams of weight per car. This may not sound like much, yet considering 100,000 cars and an average mileage of 20,000 km per year, savings of up to 20,000 kg of CO<sub>2</sub> emissions can be realized. Luran HH-120 also has an advantage in terms of injection molding cycle time, which also has a positive impact on CO<sub>2</sub> emissions.

## THERMOPLASTIC FOAM INJECTION MOLDING TECHNOLOGY FOR LIGHTWEIGHT PARTS

FOAM INJECTION MOLDING WITH TERBLEND® N SAVES UP TO 10-15% OF WEIGHT VERSUS STANDARD SOLUTIONS



On the left, Terblend N without an extra foam injection molding process; on the right, the 10-15% lighter material solution.

Weight savings are not only a matter of pure material choice, but also of production procedures and preferably a smart combination of both. One example is foam injection molding with styrenic polymers, where a blowing agent is introduced into the polymer melt, causing the melt to expand after injection into the mold cavity. Using Terblend N in such a foaming process results in weight savings of up to 10-15%.

### StyLight® – a brand new development area addressing the need for high-performance, lightweight structures

In comparison to conventional materials, continuous fiber-reinforced plastics offer not only a high weight reduction potential, but also a variety of functional advantages. Based on SAN and a proprietary, patented process technology, INEOS Styrolution developed StyLight – a new generation of high-performance thermoplastic composite, combining mechanical strength with high aesthetic value.

Thermoplastic composite sheets from INEOS Styrolution can be thermoformed, back-injection-molded and decorated in just one processing step. In addition, StyLight features very high stiffness and high dimensional stability allowing thin wall design, resulting in weight reduction.

The lower shrinkage during the cooling step of the styrenic copolymer matrix, based on a modified SAN, reduces the surface rough-

ness or waviness significantly, offering superior surface quality. The surface quality allows various aesthetic surface effects, such as film decoration, easy painting and printing. This composite sheet not only ensures aesthetics, structural strength and performance, but also addresses megatrends of our time, such as energy and resource efficiency in the automotive industry. According to recent studies in automotive engineering, such glass-fiber-reinforced plastics enable a weight reduction of up to 50% versus standard solutions reinforced with metal or made of SMC. Compared to injection-molded parts, the new material offers a thickness reduction of 50–70% resulting in a weight reduction of 40–50%.

Because of its characteristics, StyLight is specifically targeting semi-structural applications for automotive interiors and exteriors. It is also an attractive solution for electronics as well as high-performance sport equipment.

GLASS-FIBER-REINFORCED PLASTICS ENABLE A WEIGHT REDUCTION OF UP TO 35% VERSUS STANDARD SOLUTIONS



[Click here to view the StyLight video.](#)

### New high-heat ABS Novodur® Ultra 4255

In 2016, INEOS Styrolution released one of its most interesting material innovations, enhancing its dedicated portfolio of sustainable solutions for interior automotive applications. The new Novodur Ultra 4255, a low-emission and high-heat ABS, features high impact strength at room as well as at low temperatures, 100% ductility at -30°C, high heat resistance as well as enhanced flowability. We expect the new Novodur Ultra to become a material of choice for car interiors, especially for applications such as door panels, lower seat trims, center and overhead consoles or glove box doors and frames.



### Green and sustainable ways of electroplating

Many applications in the household, sanitary and automotive sectors require the functionality and freedom of design offered by plastics. However, a shiny “metal-like” look is often desired as an additional feature to provide premium aesthetics. Apart from conventional painting, electroplating has proven to be an efficient and cost-effective solution to also give styrenic polymers, predominantly ABS, a convincingly metallic look.

Due to its exceptional quality standards and consistency, our Novodur® P2MC has established itself as the European market leader among electroplateable ABS grades. The electroplating process, however, is under critical observation of authorities due to the common use of hexavalent chromium (Cr(VI)) in the etching bath. Because the European Union has published a sunset date for the use of Cr(VI) in electroplated applications and processes (September 2017), the need for alternatives has been pronounced. We started collaborations with academia and a market leader in electroplating. The aim was to investigate new processes without the use of Cr(VI), while maintaining the high quality of subsequently metalized ABS surfaces. These studies proved the ability of P2MC to perform also in selected Cr(VI)-free processes. Permanganate etching, for instance, could lead to comparable adhesion quality and surface appearance.



[Click here for more sustainable automotive solutions.](#)

## STYRENICS TO BUILD ON – CONSTRUCTION HIGHLIGHT EXAMPLES

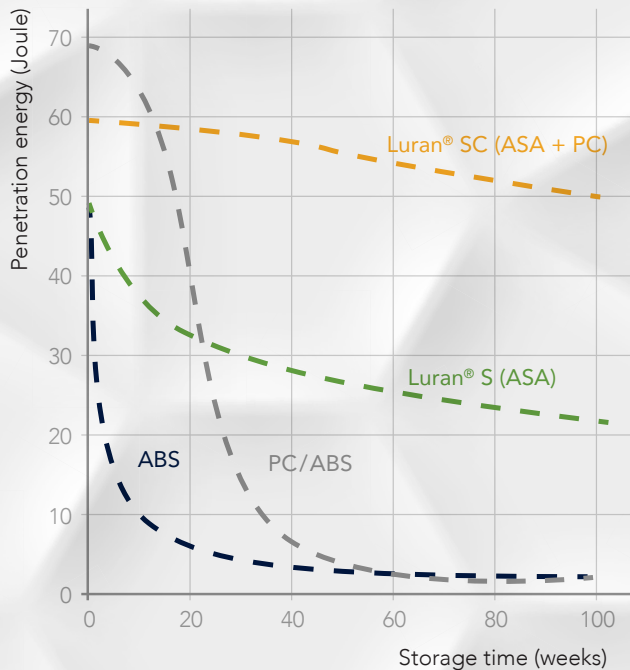
### Luran® S – a sustainable product line

The INEOS Styrolution Luran S, an acrylonitrile styrene acrylate copolymer (ASA), combines powerful and versatile properties, such as excellent processability, high-impact resistance and chemical resistance, as well as superior long-term performance under UV and heat exposure. Those advanced properties allow a durable, high-quality surface appearance and make this material ideal for unpainted exterior applications. On the global market, ASA often competes with other impact resistant polymers based on butadiene rubbers, such as ABS. Competitive products, however, can never reach the same heat and UV aging resistance as ASA. Due to its chemical nature, ABS starts to become yellowish and brittle when constantly exposed to heat and UV radiation. An additional painting step helps to protect ABS against UV irradiation. This measure, however, leads to an increase in energy consumption and emission of volatile compounds within the production chain. Aside from that, the coating layer cannot fully prevent the ABS from heat aging, resulting in increased brittleness over time. The accelerated heat aging test performed (see infographic on the following page) measures the impact resistance of samples after exposure to heat at 90 centigrades. Test results show that PC/ ABS, for instance, starts at a higher level of impact toughness than ASA but also suffers from a significant drop of impact strength after a couple of weeks. ASA loses impact resistance over time as well, however, in a much flatter progression. Assuming that the functionality of the technical solution requires at least 50% of ASA’s initial impact strength, the test results

indicate that, in spite of very demanding conditions, parts made of ASA allow a lifetime of 70 versus 25 weeks, which is 2.8 times higher than the life time of PC/ ABS parts. This material choice reduces the need for an early replacement and saves according to this example resources and energy of 64%.

THE HEAT AGING TEST INDICATED THAT PARTS MADE OF LURAN® S ALLOW A 2.8 HIGHER LIFETIME THAN PC/ ABS

### HEAT AGEING TEST



### LURAN® S Q440 AS COEXTRUSION LAYER ON PVC FOR DURABLE DECKING



LOWEST WARPAGE, MOISTURE ABSORPTION, BEST SPLINTER AND CRACK BEHAVIOR AT MAXIMUM OUTDOOR STABILITY RESULT IN A LOW-MAINTENANCE, WEATHER-RESISTANT, MATTE MATERIAL THAT CUSTOMERS DO NOT NEED TO REPAINT.

### STYRENICS FOR SAFE AND RELIABLE HEALTHCARE APPLICATIONS – HEALTHCARE HIGHLIGHT EXAMPLES

#### Novodur® HD – a superior product that meets both technical and regulatory demands

INEOS Styrolution recently introduced the new developed Novodur HD M203FC G3 – a glass-fiber-filled medical polymer grade for IV transfer spikes. As the first such ABS product on the market, it is offered with the full complement of healthcare compliance documents worldwide, being already used in medical accessories by the global medical device manufacturer Fleima-Plastic.

The challenge was to create a material with the required dimensional stability and stiffness while still being regulatory compliant. Thanks to these special glass fibers, this ABS material has an exceptionally high E-modulus and a significantly improved compression, bending, tensile and impact strength. Such characteristics as well as high surface quality, superior flowability and processability mean that it can even be used to produce complex geometrics. In addition, the glass fiber reinforcement and the ABS material comply with the requirements of USP Class VI, selected ISO 10993 biocompatibility standards and various food contact regulations. Due to its unique properties and regulatory compliance, Novodur® HD M203FC G3 has the potential to become the first choice material for demanding healthcare applications, such as medical spikes, as well as for medical applications requiring structural stability and high flowability.

[Click here for more sustainable construction solutions.](#)



**Styrolux® 4G60: New material for drip chambers in infusion sets**

Styrolux 4G60 has been specifically designed for the development of drip chambers in IV sets. This new grade represents the first solution of the fourth generation of advanced copolymer materials. Excelling in softness, elasticity and transparency as well as high bonding performance, this new grade makes it an excellent fit for the production of drip chamber containers.



[Click here for more sustainable healthcare solutions.](#)

**STYRENICS IN YOUR HOME – HOUSEHOLD HIGHLIGHT EXAMPLES**

**Saving our customers’ production time**

An Asian-Pacific customer turned to INEOS Styrolution to help optimize the painting process of plastic parts by reducing a processing step. The challenge: Save the step of applying a primer coat on the surface, prior to painting. By developing a proprietary technology to enhance surface polarity, our Asian-Pacific team, supported by global R&D, successfully provided a new development product with superior painting properties, specifically for washing machine parts. This project has high multiplication potential for other regions and applications.

**AESTHETIC THIN-WALL AND LIGHTWEIGHT DESIGN WITH NOVODUR® P2H-AT**



NOVODUR® P2H-AT ENABLES AESTHETIC THIN-WALL AND THUS LIGHTWEIGHT APPLICATIONS DUE TO HIGH STIFFNESS AND IMPROVED SCRATCH RESISTANCE COMPARED TO ALTERNATIVE MATERIALS, SUCH AS POLYPROPYLENE.

[Click here for more sustainable household solutions.](#)

**IMPROVED ENVIRONMENTAL STRESS-CRACK-RESISTANT (ESCR) ABS COMPATIBLE WITH NEW SUSTAINABLE BLOWING AGENT**



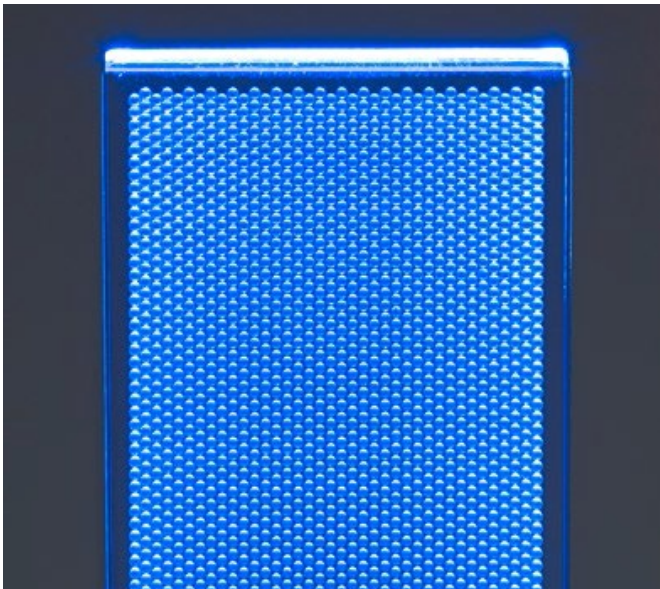
OUR HIGH-IMPACT ABS ESCRIMA SUPPORTS OUR CUSTOMERS IN PRODUCING MORE SUSTAINABLE REFRIGERATOR SOLUTIONS DUE TO SUPERIOR ESCR TO NEW SUSTAINABLE BLOWING AGENT.

[Click here to read more about our household solutions on our website.](#)

ENABLING THE DEVICES OF TODAY AND TOMORROW – ELECTRONICS HIGHLIGHT EXAMPLES

**NAS® in the spotlight**

Lights have a multitude of functions in the electronics industry, such as signaling, decoration and night design. INEOS Styrolution’s transparent styrenics have emerged as enablers of innovation in this field. For example, our styrene acrylic copolymer (NAS) offers a high degree of light transmission and optical clarity, as well as excellent processability and easy flow compared to PMMA or PC. Since NAS has lower density and does not need pre-drying, it is a resource-efficient solution, too.



[Click here for more sustainable electronics solutions.](#)

STYRENICS FOR SAFE AND HYGIENIC PACKAGING – PACKAGING HIGHLIGHT EXAMPLES

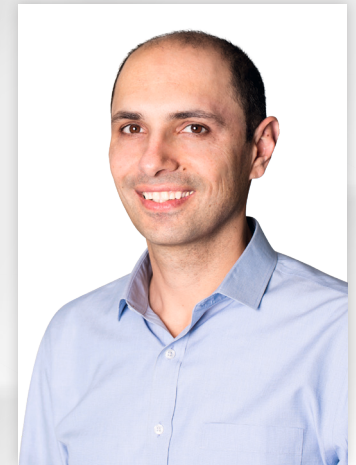
**Energy-efficient cups made of Styrolution PS 486N**

Polystyrene cups exhibit high mechanical strength at low weight, do not require pre-drying and consume less process energy compared to other plastic materials. In fact, the production of polystyrene requires approximately 60% less energy than polypropylene, and 40% less energy than PET.



[Click here for more sustainable packaging solutions.](#)

“WE EMBRACE SUSTAINABILITY AS A PLATFORM FROM WHICH WE DRIVE INNOVATION IN OUR PRODUCTS AND PROCESSES. WE



COLLABORATE WITH RENOWNED R&D INSTITUTES AND INDUSTRY PARTNERS TO BRING ABOUT CHANGE IN WHAT WE DO TO MUTUALLY BENEFIT OUR CUSTOMERS AND OURSELVES. LIGHT-WEIGHTING, EFFICIENT USE OF RESOURCES, SUPPORTING NEW RECYCLING CONCEPTS, AND PRODUCING LESS WASTE AND EMISSIONS ARE JUST A FEW EXAMPLES OF WHAT WE ARE PASSIONATE ABOUT AND WHERE WE STRIVE TO ACHIEVE REAL IMPROVEMENTS THAT CAN BE MEASURED AND TRACKED.”

Mohammed Abboud – Product Manager Commodity Styrenics



“FOR US, SUSTAINABILITY IS A CONTINUOUS EFFORT AND JOURNEY

TO EVALUATE CUSTOMER NEEDS AND OFFER THEM SUSTAINABLE PRODUCTS, SERVICES AND SOLUTIONS TO HELP THEM GAIN A SUSTAINABLE COMPETITIVE ADVANTAGE IN THE MARKET TODAY.”

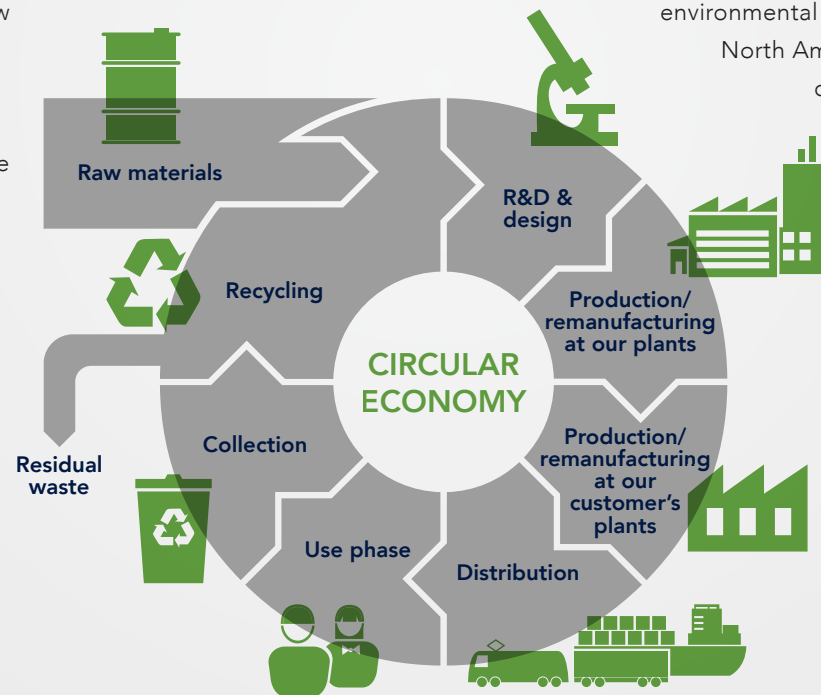
SangJun Ahn – Technical Specialties Management

## DEPOLYMERIZATION – FOR THE CIRCULARITY OF OUR PRODUCTS

Finding new ways to recycle represents an increased opportunity to save valuable resources for future generations and to avoid plastics ending up in landfills. Under a PlasticsEurope-led initiative, INEOS Styrolution is jointly exploring new ways to increase the circularity of plastics by engaging the value chain in the development and industrialization of promising new recycling technologies. Focusing on chemical recycling, this new initiative aims at converting collected post-consumer polystyrene waste into virgin polystyrene, with the target to generate

high-quality polystyrene to meet the most demanding standards, ultimately for food contact applications. New technologies can further enhance the recovery of high-value feedstock from consumer waste and enable its incorporation into plastic manufacturers’ production processes. These technologies, through an extensive collaboration along the value chain, can provide efficient and sustainable solutions to today’s environmental challenges. Also in

North America, we are in discussions with partners to engage in similar chemical recycling projects.



### 3.2.3 RESPONSIBLE BUSINESS PRACTICES ACROSS THE ENTIRE VALUE CHAIN

We place great importance on a responsible approach to our product portfolio along the entire value chain: We collaborate closely with our suppliers and encourage them with our [Supplier Code of Conduct](#) to commit to high sustainability standards.

With our [sustainability screening tool](#), we aim to ensure that product developments meet our sustainability requirements right from the beginning of the innovation process.

We drive continuous reduction in our environmental footprint by enhancing our operations' overall resource and energy efficiency and by reducing our emissions. In our supply chain, transport to and from our sites are mainly done by ships and trains. As we have production sites all around the globe, we are able to serve our customers from closer locations, which helps minimize transportation.

At our customer's production facilities, our resins are energy-efficient in production due to lower processing temperatures in comparison to other engineering plastics, and have a high flowability of the polymer melt, which also results in shorter cycle times. The low density of our materials, which allows more parts to be made per ton produced, and the high

stiffness of our styrenics, which enable thinner walls, makes our products more resource- and cost-efficient.

In addition, our resins enhance our customers' products' sustainability as they are high impact and environmental stress-cracking resistant, durable and long-living. They extend shelf life of end-consumer products and contribute to the reduction of food waste.

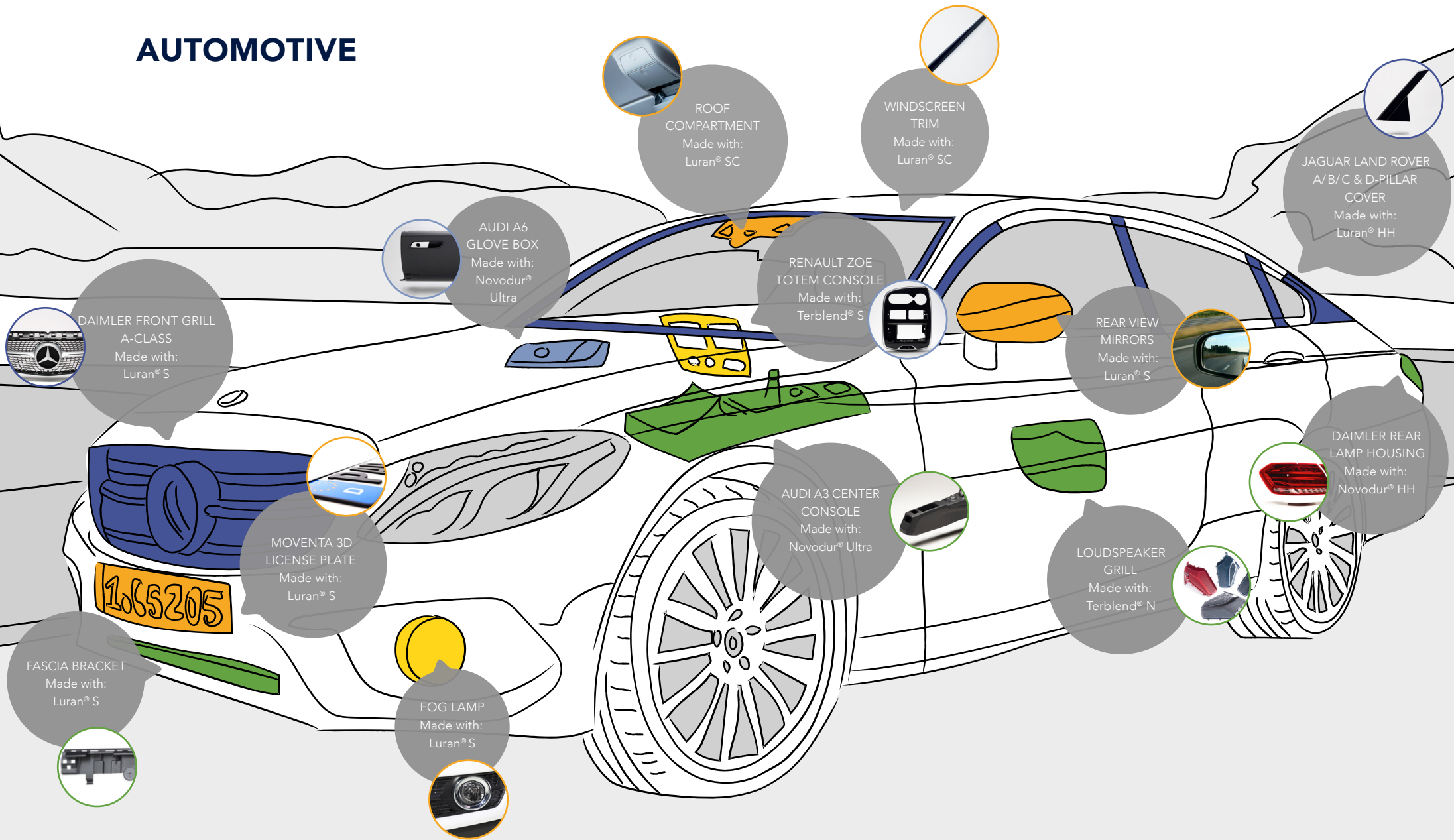
The following pages give an overview of our sustainable plastics solutions in their everyday use.

[More on responsible production can be found in chapter 4 "Responsible operations".](#)

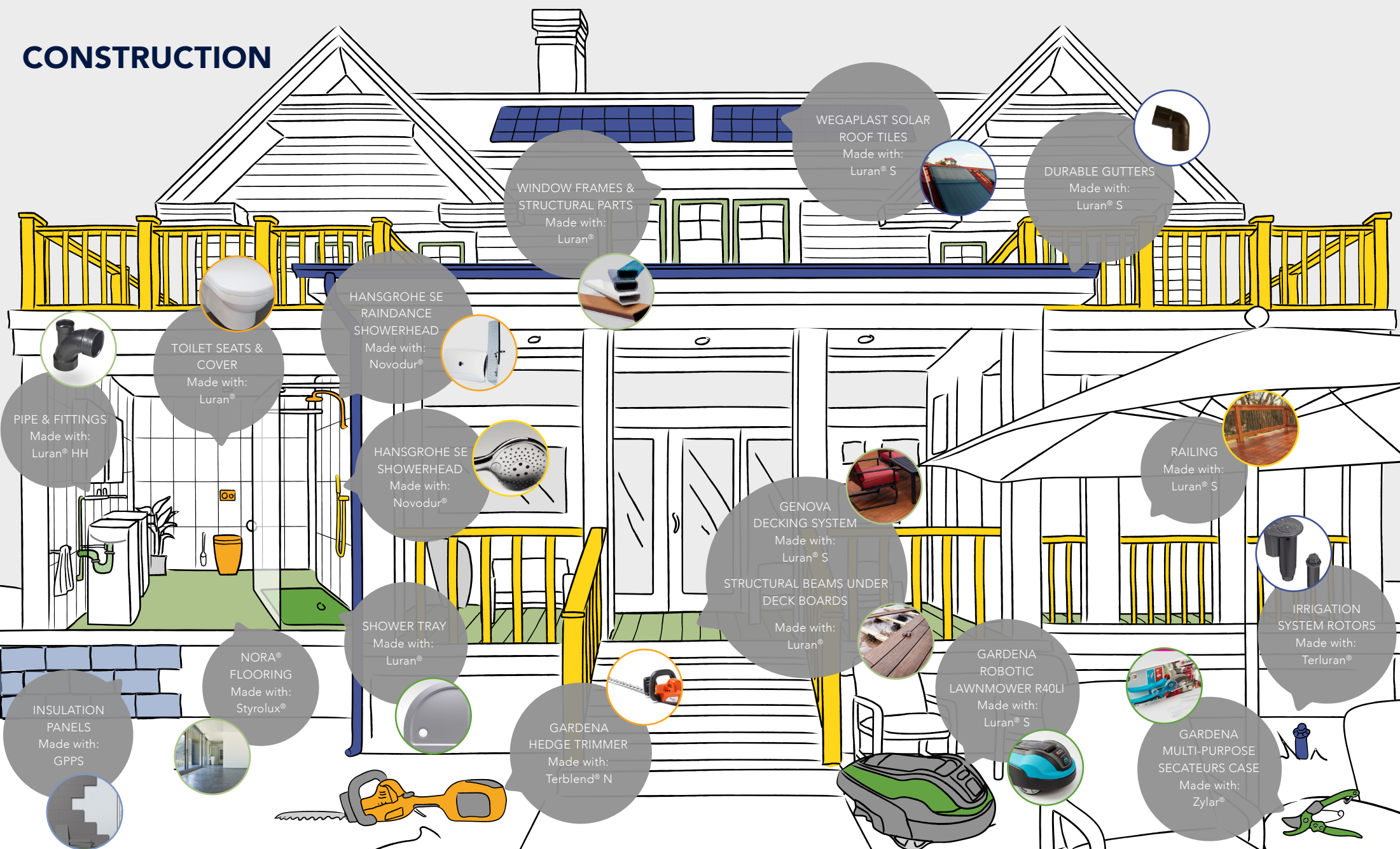
## OUR VALUE CHAIN



# AUTOMOTIVE



# CONSTRUCTION



WINDOW FRAMES & STRUCTURAL PARTS  
Made with: Luran®

WEGAPLAST SOLAR ROOF TILES  
Made with: Luran® S

DURABLE GUTTERS  
Made with: Luran® S

HANSGRÖHE SE RAINDANCE SHOWERHEAD  
Made with: Novodur®

TOILET SEATS & COVER  
Made with: Luran®

PIPE & FITTINGS  
Made with: Luran® HH

HANSGRÖHE SE SHOWERHEAD  
Made with: Novodur®

GENOVA DECKING SYSTEM  
Made with: Luran® S

RAILING  
Made with: Luran® S

STRUCTURAL BEAMS UNDER DECK BOARDS  
Made with: Luran®

IRRIGATION SYSTEM ROTORS  
Made with: Terluran®

SHOWER TRAY  
Made with: Luran®

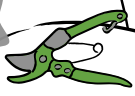
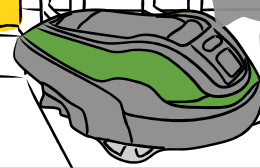
GARDENA ROBOTIC LAWNMOWER R40LI  
Made with: Luran® S

GARDENA MULTI-PURPOSE SECATEURS CASE  
Made with: Zylar®

INSULATION PANELS  
Made with: GPPS

NORA® FLOORING  
Made with: Styrolux®

GARDENA HEDGE TRIMMER  
Made with: Terblend® N



# HEALTHCARE

BOEHRINGER  
INGELHEIM  
HANDIHALER®  
Made with:  
Novodur® HD &  
Terlux® HD



IV BAG  
Made with:  
Styroflex®



CELON PHARMA  
MULTI-DOSE INHALER  
Made with:  
Novodur® HD



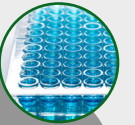
PETRI  
DISHES  
Made with:  
GPPS



B. BRAUN NEEDLE  
HOLDER  
Made with:  
Terlux® HD



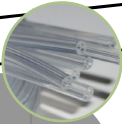
MICROTITER PLATE  
Made with:  
GPPS



OMRON BLOOD  
PRESSURE MONITOR  
Made with:  
ABS



MICROSPEC  
MULTI-LUMEN TUBES  
Made with:  
Styroflex®  
& Styrolux®



AMBU® ASCOPE™ 2  
Made with:  
Terlux® HD



B. BRAUN  
INFUSION SET  
Made with:  
Terlux® HD



FLEIMA  
IV TRANSFER  
SPIKE  
Made with:  
Glass-fiber-filled  
Novodur® HD



HAKKO MEDICAL  
EZ TROCAR  
Made with:  
Terlux® HD



GREINER BIO-ONE  
LABWARE  
Made with:  
GPPS

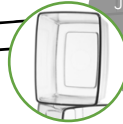


# HOUSEHOLD



TRANSPARENT CUPS & PITCHER FROM GUZZINI  
Made with: NAS®

THE IDEAL NON-GLASS GLASS  
Made with: NAS®



TRANSPARENT JARS & BOWLS  
Made with: NAS®



WATER FILTER  
Made with: NAS® & Terlurx®



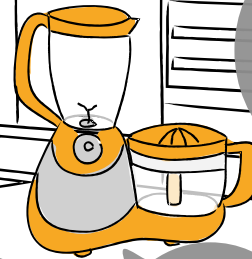
SALAD SERVERS & BOWL FROM GUZZINI  
Made with: NAS®



FULLY AUTOMATED BSH COFFEE MACHINE EQ. 8  
Made with: Terluran® & Luran®



VORWERK THERMOMIX®  
Made with: Novodur®



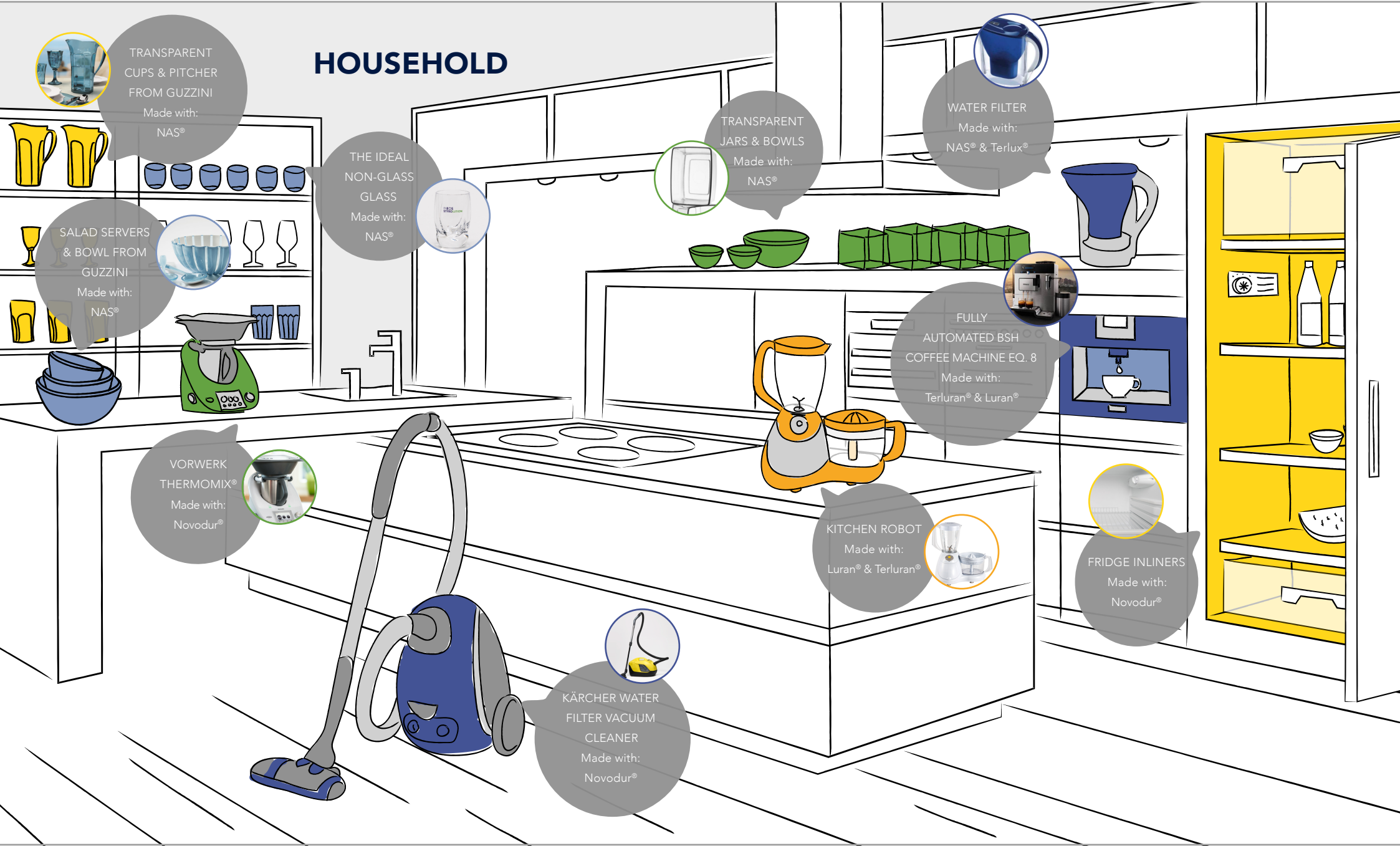
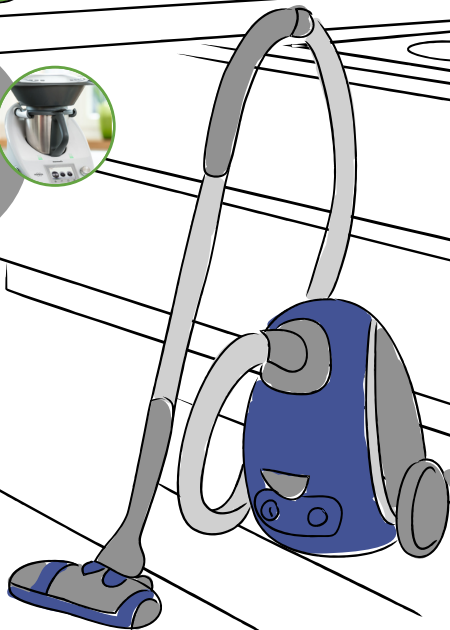
KITCHEN ROBOT  
Made with: Luran® & Terluran®



FRIDGE LINERS  
Made with: Novodur®



KÄRCHER WATER FILTER VACUUM CLEANER  
Made with: Novodur®



# ELECTRONICS

ELECTRONIC HOUSINGS  
Made with:  
Terluran®



ECONOMIC LASER BEAM PRINTER  
Made with:  
HIPS & Novodur®



TONER CARTRIDGE  
Made with:  
Terluran®



PC HOUSING  
Made with:  
Terluran®



I-ROBOT HOUSING  
Made with:  
Terluran®



ALL-IN-ONE INKJET PRINTER  
Made with:  
Terluran®



ECONOMIC LASER BEAM PRINTER  
Made with:  
Terluran®



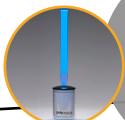
WIRELESS E-ALL-IN-ONE INKJET PRINTER  
Made with:  
Terluran®



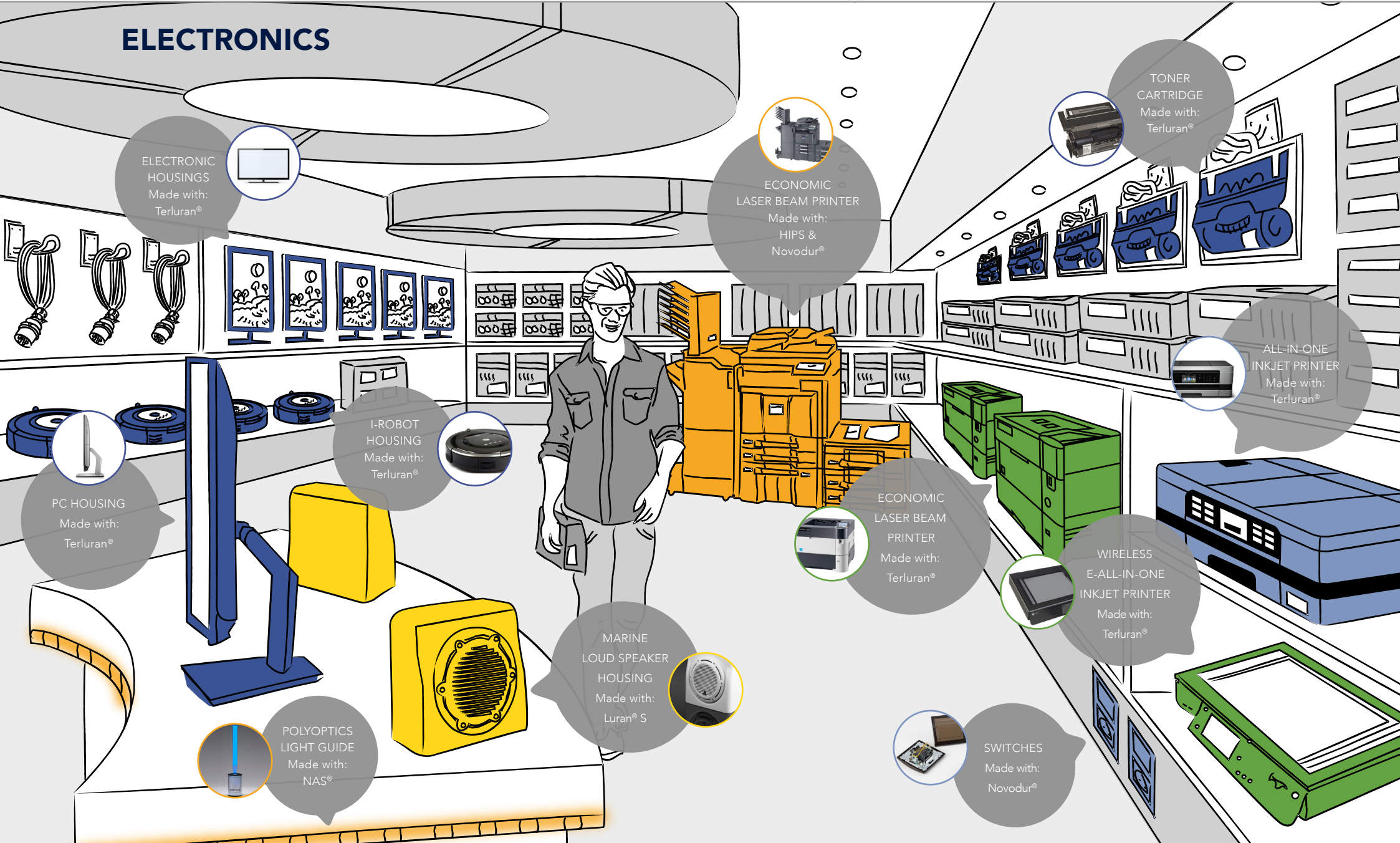
MARINE LOUD SPEAKER HOUSING  
Made with:  
Luran® S



POLYOPTICS LIGHT GUIDE  
Made with:  
NAS®



SWITCHES  
Made with:  
Novodur®



# PACKAGING

TRANSPARENT STABLO CASE  
Made with:  
Zylar®



FOAMED SHEETS FOR MEAT PACKAGING  
Made with:  
GPPS



CRYSTAL CLEAR CREAM JARS  
Made with:  
Luran®



TOLY COSMETIC COMPACTS  
Made with:  
Luran® & Novodur®



CLEAR EXTRUSION BLOW MOLDED CANISTERS  
Made with:  
Zylar®



FABBRI MULTI-PURPOSE CLING FILM  
Made with:  
Styroflex®



FOOD CONTAINER PACKAGING  
Made with:  
Styrolux®



TRANSPARENT FOOD PACKAGING  
Made with:  
Styrolux®



TRANSPARENT ICE & DESSERT PACKAGING  
Made with:  
Styrolux®



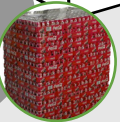
SHRINK SLEEVES THAT FIT LIKE A SECOND SKIN  
Made with:  
Styrolux®



OPAQUE FOOD PACKAGING  
Made with:  
GPPS



STRETCH HOOD PACKAGING  
Made with:  
Styroflex®



### 3.3 DRIVING PRODUCT STEWARDSHIP FOR SAFE, TOP-QUALITY PRODUCTS<sup>1</sup>

Our customers require safe products that are compliant with local and international regulations for their handling and for their final applications. Thus, complying with product regulations and delivering safe, top-quality products to our customers is at the heart of our business. INEOS Styrolution takes its responsibility very seriously to ensure the safety of end consumers, business partners, employees and contractors who process our materials along the value chain.

#### ALWAYS SAFETY FIRST

Ensuring compliance with all the various national and international regulations is an ongoing obligation and forms an integral part of our operations. We make sure that our styrenics and raw materials comply with legal requirements in all regions and industries we serve. For example, in the food packaging industry, our products meet strict standards, including those set by the European Food Safety Authority (EFSA) and the U.S. Food and Drug Administration (FDA).

In order to provide customer-centric regulatory support and proactively address global regulatory and product safety trends, we rely on our global network of internal and external experts. As specialists in chemical and product regulations related to our portfolio, they can offer regulatory consulting services to our own businesses and in certain cases – for example, when dealing with product approvals in different regions – directly to our customers.

#### SUPPORTING OUR CUSTOMERS

To ensure product safety and to give our customers a competitive edge, we offer a comprehensive range of services. Via an online portal, we provide various important information – such as safety data sheets in various languages, technical data sheets and regulatory documents. In addition, a team of dedicated professionals is on hand to help our customers meet strict international regulatory requirements. This especially applies to customers from the healthcare industry. We offer our healthcare customers comprehensive medical service packages that go well beyond industry benchmarks, such as our Full Service HD Package or our Essential HD Package. The Full Service HD Package helps customers save time and money, so that they can focus their energies on product vision and design. For example, a Notification of Change (NOC) term of up to 36 months can be offered when signing a long-term supply contract. Furthermore, it comes with full regulatory compliance, including USP class VI, ISO 10993, FDA and food contact compliance, Drug Master File (DMF) as well as letters of authorization. Increased technical support (color and application development, design support, etc.) as well as an obligation of suppliers to control the specification of their raw materials are other characteristics of the Full Service HD Package. Moreover, it has specific medical grade nomenclature and long-term security of global supply availability. INEOS Styrolution leverages its expertise to engage in collaborative development projects that anticipate legislative changes, thereby generating value for our customers and creating a competitive advantage for all involved.

#### PRECAUTIONARY PRINCIPLE<sup>2</sup>

As a manufacturer, committed to the long-term sustainability of our business, we manage the use of our chemicals in a responsible manner by applying the precautionary principle. This principle is an inherent part of our approach to risk assessment and risk management: We are familiar with and closely scrutinize our substances' properties, establish guidelines for safe handling and processing and will continuously review and update our criteria and guidelines for the development of new products. In all of our plants, the precautionary principle is an integral component in our management of change process, requiring a documented risk assessment for all process changes.

#### DRIVING SAFETY AMONG PEERS

To gain a broader market overview, assess product quality and minimize risks, we also work closely with industry associations, such as PlasticsEurope and the U.S. Styrene Information & Research Center. These partnerships help us better understand current and future regulatory developments, for instance, by giving us access to studies on feedstock and product safety.

#### QUALITY IS KING

Our certified quality management system ensures the consistent delivery of high-quality products around the world, and in combination with regulatory affairs assists in

building and maintaining the trust of our customers. The system is based on best practices and international standards, such as ISO 9001. It is crucial in helping us keep the promises we make to customers in terms of quality parameters, such as consistently high technical product properties or delivery deadlines. The system facilitates on-time supply of products in a clean and serviceable condition. We have now achieved matrix certification for our European business (including sales, product development and European operations) rather than certification for each individual plant, providing greater confidence to our customers in our completely integrated quality approach. We plan to extend this step by step into the rest of our global activities.

### PRODUCT RESPONSIBILITY<sup>1</sup>

We constantly monitor international regulations as they develop to anticipate requirements, to improve our products and to ensure compliance in all markets in which we operate. For example, in applying global inventory management, we have

implemented automated tools such as the Substance Volume Tracking Tool for REACH to avoid non-compliance cases. We make use of an eShop on our website to provide up-to-date information to our customers on product stewardship, providing a wide range of information that can be downloaded at any time to assist customers in using our products effectively and safely.

We provide over 3,000 downloadable safety data sheets directly on our website that cover our large range of products. They are provided in 32 languages covering the 40 different countries in which those products are sold.

For customers who register on our website, around 265 regulatory documents are available for download, including regulations on food contact, RoHS, REACH, and SVHC. Customers who download regulatory documents receive notification of updates. In 2016, we received around 10,000 requests which were addressed either via our product

stewardship network or via regulatory documents on our website. We are constantly reviewing and improving our website services in order to make it more user-friendly for our customers.

Nearly 1,000 requests regarding regulatory information on our products were entered into IMDS, the International Material Data System. The IMDS is a global data repository that contains information on materials used by the automotive industry. In order to further drive our automotive market in Asia-Pacific, we are also supporting data entries into the Chinese equivalent system CAMDS.

We produce polymers based on the major components styrene, acrylonitrile and butadiene. Our polymers are recognized to be safe in their intended use. Therefore, labeling of our polymer products is generally not necessary. Styrene and ethylbenzene are labeled in compliance with regulations.



4.0 RESPONSIBLE OPERATIONS



# RESPONSIBLE OPERATIONS AT INEOS STYROLUTION

Operating responsibly is deeply anchored in our corporate values.

We are strongly committed to protecting the safety and health of individuals, using resources efficiently, and safeguarding the environment.

## 4.1 OUR MISSION: FOSTERING SAFE AND RELIABLE OPERATIONS

INEOS Styrolution continuously strives to improve production processes, use resources more efficiently and minimize its environmental impact for current and future generations. This includes working to ensure the safety of individuals, including our employees, contractors, partners, and external stakeholders.

The company's operating procedures continually seek greater efficiency in the use of energy and materials, improvements in the conservation of water, reduction of emissions, waste water and other waste through recycling, the recovery of by-products and end-product loss.

## 4.2 PUTTING OUR MISSION INTO PRACTICE: MAKING SAFETY A TOP PRIORITY

INEOS Styrolution is convinced that being a market leader goes hand in hand with an outstanding safety record and that all accidents are preventable. Incident-free operation is our objective. We take our responsibility for Safety, Health & Environment (SHE) very seriously and are fully committed to delivering a continually improving performance across all our operations.

We strive to meet, and where feasible, exceed strict safety and health performance targets. We are transparent about our performance and publish our results locally and nationally, as required.

### OUR SUSTAINABILITY TARGETS FOR SAFETY

We now have defined global sustainability targets for all seven focus areas of our business and also for our company's safety performance. These targets underscore our commitment to continuous improvement and are intended to enhance the transparency of our company's operations. The safety of our employees, contractors and on-site logistics personnel has been our undisputed number one priority. Therefore, first and foremost, we strive for continuous improvement of our safety performance and aim to reach our annual overall safety target of 0.38 for 2017 – 0.36 for employees and 0.40 for contractors.



### KEY HIGHLIGHTS 2016

**100%** of sites/ offices have formed  
**JOINT MANAGEMENT-  
WORKER SAFETY COMMITTEES**

Reduction in severity of **LOST TIME  
INJURY RATE**  
(LTIR) to **0.12** (versus 0.22 in 2015)

In 2014 and 2015, more than  
**13,000** **BEHAVIORAL-BASED  
SAFETY OBSERVATION**  
(BBSO) submissions per year

### SUSTAINABILITY TARGETS

**CONTINUOUS IMPROVEMENT**  
of our company's  
**SAFETY PERFORMANCE**

Reducing annual  
**TOTAL CASE INJURY RATE**  
(TCIR) to **0.38**

We have established a SHE culture of open dialogue, coaching and trust that reinforces our SHE performance. We aim to minimize the impact our facilities have on local communities and local environments. This means working in close partnership with community groups and key stakeholders to ensure that we are a responsible neighbor and partner. It is the responsibility of everyone at INEOS Styrolution to ensure the highest standards of safety and health in everything that we do. Our commitment to safety starts at the top, with the management board being responsible for our safety performance. All employees and contractors receive extensive safety training. They are also encouraged to participate in safety com-

mittees, contribute to incident learning and suggest ongoing improvements in safety standards and procedures.

**OUR GLOBAL SHE EXCELLENCE PROGRAM**

Our global SHE Excellence program was introduced in early 2012 to establish high SHE standards and management systems right from the establishment of our company. In 2015, INEOS Styrolution started to integrate the INEOS Group's SHE Principles, Guidelines and Life-Saving Rules in its SHE Excellence program. In order to facilitate this integration, we implemented a SHE Leader Training, covering all aspects of our SHE Excellence program and the expectations of INEOS. The

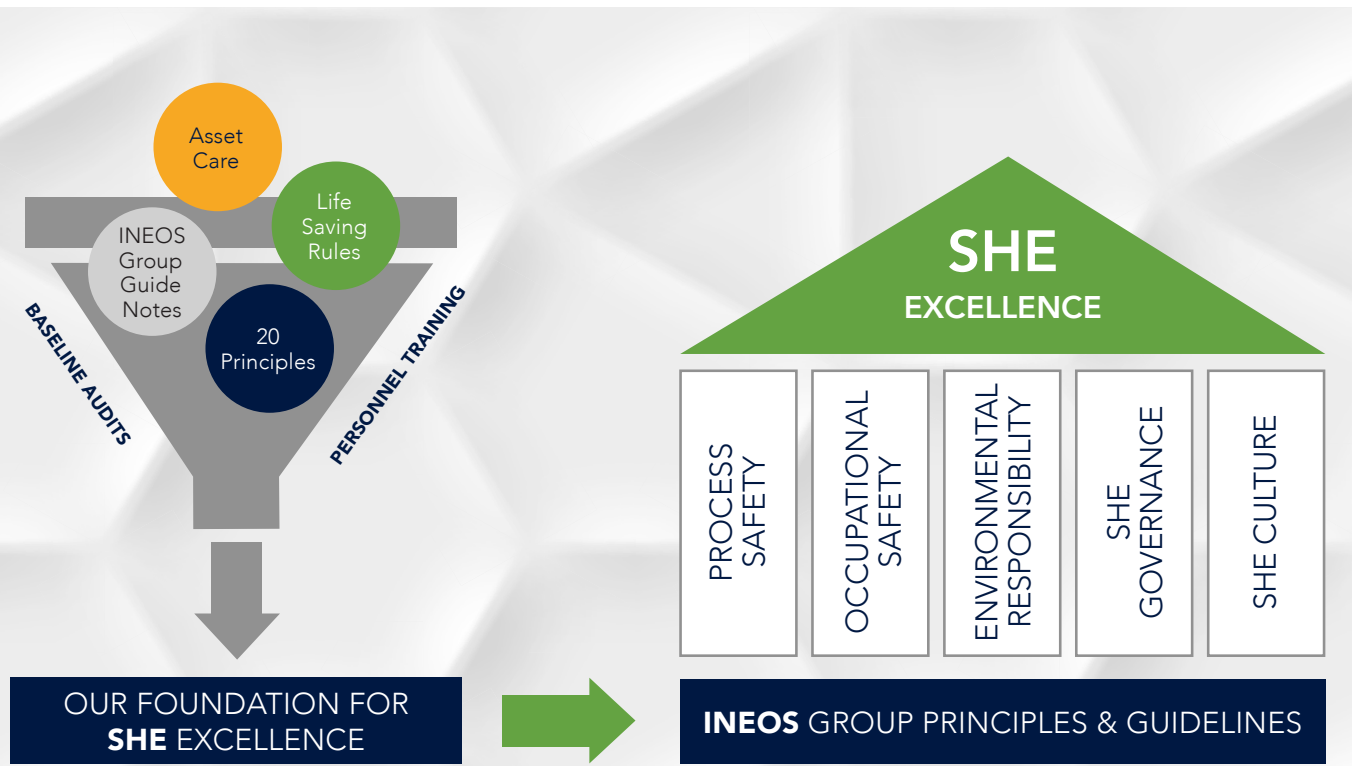
training provides a common baseline for SHE understanding, is interactive, and includes a tool kit to help our leaders train their department employees and contractors. This integration of the INEOS Group's SHE standards into our SHE Excellence program was completed in April 2016 across all our sites. Safety trainings are provided to our employees, new hires, and contractors and on-site logistics personnel on a regular on-going basis to ensure the highest standards of safety and health.

**OUR SAFETY PRINCIPLES**

We focus our attention on safety in the processes we apply and the behaviors we expect. In alignment with all other INEOS Group businesses, we follow two sets of ten key safety principles that have become our 20 principles. These 20 principles set the standard for the entire company. They define what is expected of all our employees, contractors and businesses on a day-to-day basis. They were developed using experience and learnings over the years from INEOS as well as external learnings from major safety incidents worldwide.

Ten of our principles deal with process safety and are aimed at ensuring that the right leadership and values are in place to maintain asset integrity. Process safety involves continual safety improvements to existing manufacturing processes as well as the design of new processes. The other ten are behavioral safety principles that focus on human factors to instill the right values and behaviors so that people understand that we do not put production ahead of their safety.


We do not want individuals at our plants to take unnecessary risks, and therefore, we ensure proper risk assessments are in place. These 20 principles form the foundation of our SHE Excellence program.



Regular training activities, auditing and the exchange of best practices across all regions and sites keep safety at the forefront of operations.

We performed extensive audits at all our sites in 2016 to review compliance with our ten behavioral safety principles. Each site is measured on its adherence to these principles and on its performance regarding specific safety targets. The audit protocols are practical and focus on how these ten principles are actually put into practice by the people working at our manufacturing facilities.


To provide third-party perspective in terms of compliance, these audits were designed to be cross-functional, which means that our company's internal audit teams performed audits at each other's facilities. This not only guarantees a consistent audit approach, but also allows for sharing of internal best practices. These audits were led by trained members within our Operational Leadership team, accompanied by an Internal Audit team knowledgeable in SHE and the operational aspects of our business. Across the business, 77 internal INEOS Styrolution auditors were trained to conduct these audits at our manufacturing sites.




### WORKING TOGETHER TO STAY SAFE AT WORK

PROCESS SAFETY PRINCIPLES

- 1 The asset operating manager is responsible for its overall integrity
- 2 The asset engineers are responsible for maintaining the asset and protective systems integrity
- 3 The responsibilities in the organisation for defining and maintaining the correct operating envelopes must be clear
- 4 Operating procedures and envelopes must be observed. Deviations must be reported and investigated
- 5 Any changes must be properly risk assessed and subjected to MOC procedures
- 6 Process hazards are systematically identified, risk assessed, reviewed and managed
- 7 All assets must be subject to periodic inspection designed to ensure their integrity and the reliability of their protective systems
- 8 Operations must always place the safe operation or shutdown of the asset ahead of production
- 9 When in doubt the asset must always be taken to its safest state
- 10 We have emergency plans based on assessed risks which are regularly tested




Driving Success. Together.



### ON OUR WAY TO ACHIEVE INCIDENT-FREE OPERATION

BEHAVIOURAL SAFETY PRINCIPLES

- 1 We believe all incidents and injuries can be prevented
- 2 Everyone's first responsibility is to ensure they work safely
- 3 Everyone has the duty to stop work if they feel the situation is unsafe
- 4 The expectations and standards are the same for everyone on the site
- 5 Rules and procedures must be observed and respected
- 6 We should look out for each others safety and unsafe situations
- 7 All injuries and incidents/near misses must be reported and investigated
- 8 Risk assessment must be carried out prior to, during and on completion of work
- 9 All team leaders have a special responsibility for promoting and upholding these principles
- 10 We must always work within the limit of our competency and training



Driving Success. Together.

“FOR US, SAFETY ALWAYS COMES FIRST AND IS THE BEST INVESTMENT WE CAN MAKE TO ENSURE THE SAFETY AND HEALTH OF OUR COLLEAGUES, CONTRACTORS AND ON-SITE LOGISTICS PERSONNEL. OUR BEHAVIORAL-BASED SAFETY OBSERVATION (BBSO) PROGRAM AS WELL AS THE SETUP OF OUR SHE TASK FORCE HAS DEFINITELY CHANGED OUR PERSPECTIVE ON SAFETY. I APPRECIATE THE JOINT EFFORTS ON THE SAFETY PROJECTS AND THE WAY OUR COLLEAGUES LOOK OUT FOR EACH OTHER, SHARE CONCERNS, GIVE CONSTRUCTIVE FEEDBACK AND ENSURE SAFE WORKING CONDITIONS.”



Willem Geeraerts – SHE Hub Manager EMEA

During such audits, findings related to serious deviations were resolved by immediate corrective actions. Findings related to minor deviations were integrated into the site's annual SHE improvement plan. These audit processes take place according to a rolling three-year schedule. 2017 is an off-cycle audit year, whereas in 2018 our ten process safety principles will be audited.

### OUR BEHAVIORAL-BASED SAFETY OBSERVATION (BBSO) PROGRAM

BBSO has been a safety component at many of our manufacturing sites for over a decade. Starting in 2013, INEOS Styrolution established a BBSO program for all manufacturing locations and offices. The expansion of BBSO to all locations increased our awareness of potentially unsafe acts and workplace conditions, as well as organizational factors such as leadership and culture. In 2016, INEOS Styrolution sites submitted 16,755 BBSOs, which is an increase of 24% compared to the previous year.

### EMEA SHE TASK FORCE PUSHES FOR SAFETY

We constantly review our safety performance and look for possible trends that may help identify safety concerns. In

2016, our safety performance data indicated that we experienced an escalated number of SHE incidents involving contractors at our EMEA production sites. To improve our EMEA safety performance and to address these issues, an EMEA SHE Task Force was set up by the EMEA Manufacturing Vice President, site directors and SHE Manager in 2016. Based on root-cause analyses of all incidents so far, this project team developed a phased action plan and began implementing mitigation measures across our company's operations. Only a few months after the Task Force was formed, we are seeing improvements in the safety performance after realizing short- and mid-term actions. In the next years, we will continue our focus on the longer-term measures.

### INJURIES, OCCUPATIONAL DISEASES, LOST DAYS, AND WORK-RELATED FATALITIES<sup>2</sup>

INEOS Styrolution reports all safety matters to its management board on a monthly basis. In terms of key parameters, we focus on personal injuries, environmental performance, non-compliance with regulations, asset integrity, loss of containment, technical inspections, other high-potential incidents or near

misses and behavioral-based safety observations (BBSOs). Our safety key performance indicators (KPIs) demonstrate that we have continued to improve from the start of the business in October 2011, and our company safety performance is on par with industry leaders in the chemical industry.

Our safety KPIs include the injuries and worked hours of all of our employees and all contractors working at our sites. Beginning in January 2016, the definitions of our safety KPIs definitions were refined to include the worked hours and injuries associated with on-site logistics contractors (see infographic safety performance trend).

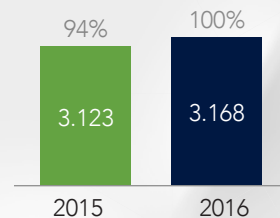
In 2016, we saw an overall year-on-year improvement in our in-plant operations and safety performance. However, this result was affected by a weak performance of our on-site logistics contractors. The number of injuries that resulted in employees or contractors being away from work for one or more days was reduced by 42% as reflected in the lost time injury rate (LTIR), which is 0.12 versus 0.22 in 2015. In addition, the overall severity of such injuries was also reduced, resulting in less days away from work per lost time injury, as indicated in the severity rate.

We encourage reporting of all injuries and incidents no matter how minor. This ensures that we can investigate these incidents to learn what happened, share lessons learned and implement solutions to prevent future occurrences. We use the OSHA definition for first aid and recordable cases to categorize all worker and contractor injuries. All of these cases combined represent the total number of work-related injuries across our business. Since 2012, we have realized a 2% annual reduction in work-related injuries.

## PERCENTAGE OF TOTAL WORKFORCE REPRESENTED IN SAFETY COMMITTEES<sup>1</sup>

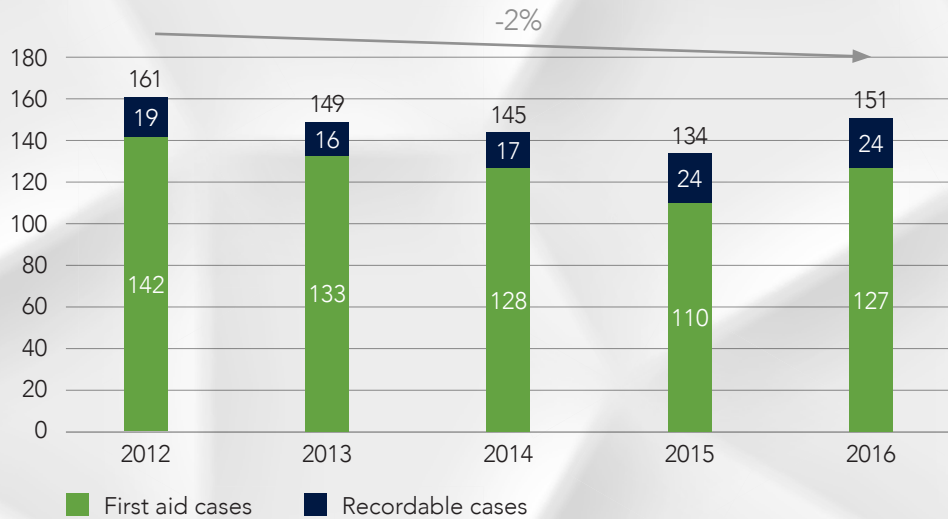
In 2016, **100%** of our locations have **SAFETY COMMITTEES<sup>1</sup>** comprised of both **MANAGEMENT AND WAGE EMPLOYEES.**

### HEADCOUNT COVERED BY SAFETY COMMITTEE



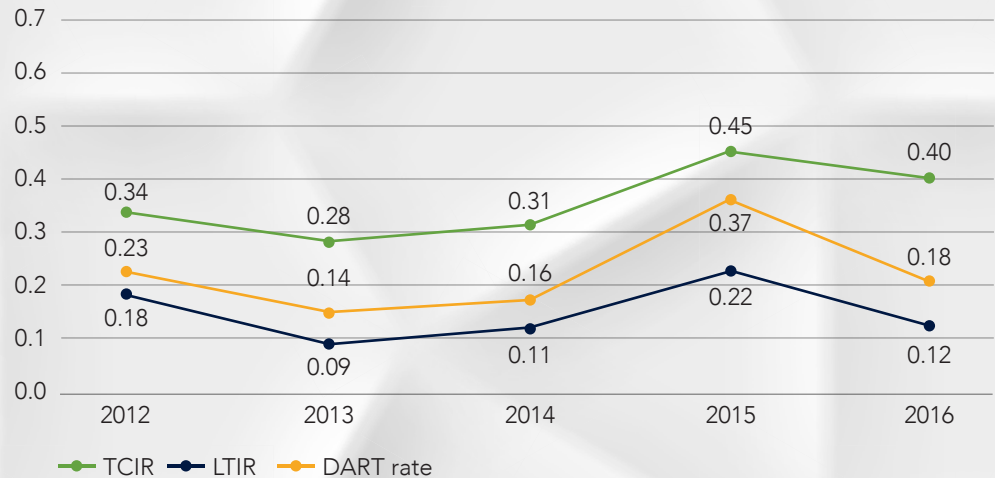
<sup>1</sup> G4-LA5, <sup>2</sup> G4-LA6

### TOTAL NUMBER OF INJURIES<sup>1</sup>



The infographic representing the total number of injuries displayed in the 2015 GRI report has been restated in alignment with the refined definitions of our safety KPIs that now include the worked hours and injuries associated with on-site logistics contractors.<sup>4</sup>

### SAFETY PERFORMANCE TREND<sup>2</sup>



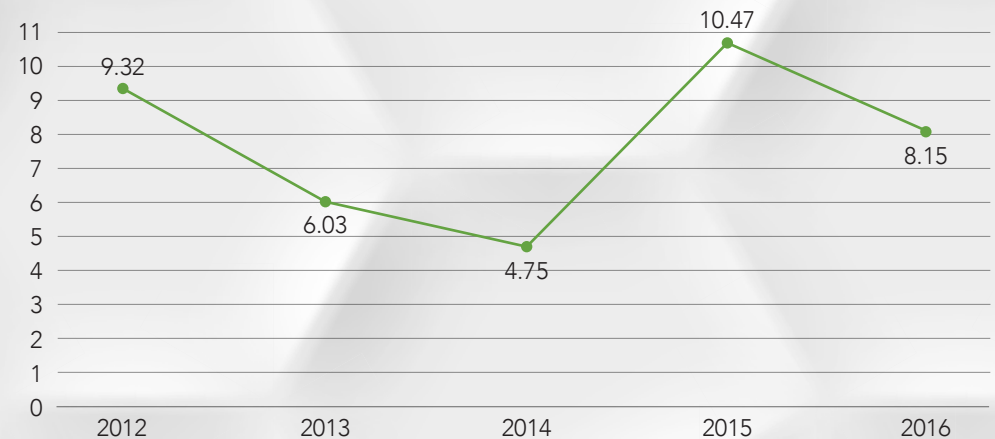
**TCIR** = Total case injury rate per 200,000 work hours (includes employees and contractors)

**LTIR** = Lost time injury rate per 200,000 work hours (includes employees and contractors)

**DART** = Rate of injury cases involving days away or restricted transfer per 200,000 work hours (includes employees and contractors)

**Severity rate** = Days away from work per 200,000 work hours (includes employees and contractors)

### SEVERITY RATE<sup>3</sup>



## 4.2.1 SHE HIGHLIGHT EXAMPLE: ASIA-PACIFIC

### SHE: WORKING FOR SAFETY HAND-IN-HAND

We strive for zero incidents every day. To better illustrate how we address safety at our production sites, we accompanied Gisik Choi, Co-polymer Production Supervisor, and Suwon Ma, Polystyrene Production Supervisor in Ulsan, to observe their daily safety procedures and actions to ensure incident-free operations.

Gisik and Suwon arrive at the site at about 8 a.m. and straight away change into flame-resistant clothing and pick up their personal protection equipment (PPE), such as hard hats, safety shoes, safety goggles and hearing protection. Being well-equipped has been vital in ensuring the employees at the Ulsan site stay recordable- and reportable-incident free for more than 1,600 days now.

In addition to the right equipment, awareness and personal communication are critical to ensuring a safe working envi-

ronment for employees, contractors and visitors. That is why morning safety meetings are a fixed item on the agenda for both Gisik and Suwon. In Gisik's meeting, team members from production, maintenance and SHE come together to review the latest safety issues and discuss the tasks for the day, as well as potential risks. Additionally, Suwon takes part in morning safety talks in the control room with shift leaders and operators.

During a walkthrough at the site, both supervisors check that all employees are working in accordance with the risk assessment. They identify any potential hazards to be addressed and ensure that all workers are wearing their PPE correctly – especially where a work permit has been given. "I use the opportunity to carry out behavior-based safety observations (BBSOs) and provide feedback to operators," Suwon says. But safety starts even earlier than this, Gisik explains: "Before issuing the permit, I make sure that the workers have all necessary information on potential work hazards, the location of emergency facilities and the evacuation plan." To ensure that colleagues are aware of the importance of safety, Gisik has a special ritual: "All the members of a work

group form a circle and hold hands, while a leader starts chanting the key safety words of the day. Gradually, the workers join in with the chant. We call that a 'touch-and-call'." In the afternoon, Suwon does another walk-through to make notes and communicate any discrepancies to the maintenance team. Meanwhile, Gisik checks the production process to ensure reliable operations for maximum throughput.

Visitors, who are not completely familiar with the safety procedures in Ulsan, pose a particular challenge. Therefore, in addition to visitor and contractor safety trainings at the reception, a display board has been set up at the plant entrance to further support safety management. "It lists the names of people inside the plant," says Gisik. "Anyone wishing to enter the plant must put their name tag or visitor ID card on the board, so we can identify who is still in the plant in the event of an emergency."

Later in the afternoon, both Suwon and Gisik have meetings to discuss their safety observations. Gisik is the organizer for his shift handover meeting and takes great care that all necessary

Gisik (third from left) at the morning's safety meeting.





Suwon keeping a sharp eye on safety, together with an operator.

safety information and updates are well communicated, to enable smooth operations in the next shift.

In the control room, a huge plot plan helps staff keep track of ongoing work permits, and provides information on all key facilities and evacuation routes. In the event of an emergency, the plan takes on the role of a command

status board, as it contains all key data on process safety management.

At the end of their shift, Gisik and Suwon pick up their tags from the board at the entrance before heading home. "I always feel happy once everyone in my shift has returned home safely to their families," says Gisik.



Gisik during a safety talk with "touch-and-call".



Safety check during a walk-through in the afternoon.

## 4.3 PUTTING OUR MISSION INTO PRACTICE: IMPROVING OUR ENVIRONMENTAL FOOTPRINT

For INEOS Styrolution, full compliance with environmental regulations is a minimum expectation. Our sustainability program drives continuous reduction in our environmental footprint by enhancing our operations' overall resource efficiency and by reducing our emissions.

We look at the entire production value chain – from the responsible use of raw materials and optimization of processes at production sites, to more efficient distribution of products to customers as well as waste management and recycling.

### KEY HIGHLIGHTS RESPONSIBLE OPERATIONS 2016

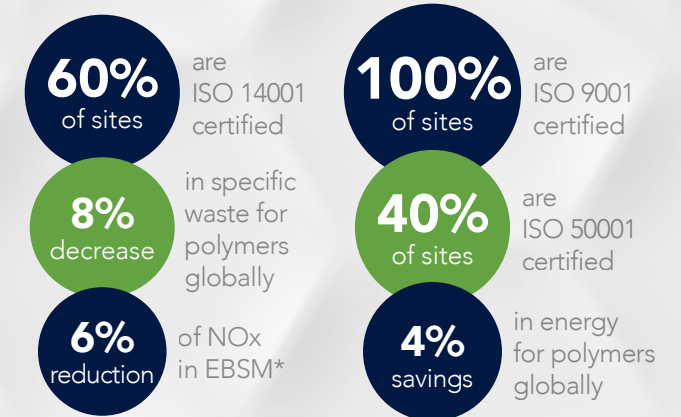
Environmental management is embedded in our daily operations and how we drive operational excellence at the site. To underline the efforts done for systematic improvement on environmental topics, most of our sites implemented certified ISO systems. For 2016, the preparations have been done for the upgrade to the new ISO 14001 and ISO 9001 2008 standard, which

will be certified in the course of 2017. During the course of the next years, further ISO certification systems will be implemented globally, for example ISO 14001 in the Americas and ISO 50001 or equivalent energy management systems in other sites.

### OUR SUSTAINABILITY TARGETS FOR OPERATIONS

We have defined global sustainability targets for seven focus areas of our business including our responsible operations. These targets underscore our commitment to continuous improvements and higher transparency. We aim to increase our ISO 50001/ environmental management system (EMS) coverage of our production sites from 40% to 60% by 2018. Further, we strive for a global coverage of ISO 14001 by end of 2019. In terms of reductions in our specific emissions, we are aiming for a 7% reduction in waste water, a 3% reduction in water use, a 7% reduction of volatile organic compounds (VOC) as well as a 10% reduction in waste for the years 2014 to 2018. We will report on these targets annually to disclose our progress.

## KEY HIGHLIGHTS 2016



## SUSTAINABILITY TARGETS



\* EBSM = ethylbenzene styrene monomer

\*\* Baseline year 2014

\*\*\* VOC = volatile organic compounds, baseline year 2015



The key drivers for our environmental management are:

- **Reduction in energy use and emissions:** We strive to continuously optimize the energy efficiency of our technology and operations
- **Resource efficiency, including scrap reduction and waste management:** Efficient use of raw materials, including reuse, recycling and recovery through optimization of our processes
- **Efficient use of water:** Reducing the use of water where possible and optimizing the water efficiency of our operations
- **Reduction of air and waste water discharge** by evaluating best available technology and prevention of accidental emissions by process control
- **Pellet loss reduction:** We take measures, especially in terms of enhanced housekeeping, to prevent plastic pellet loss at our production sites as well as during transportation

Monitoring these key drivers is built into business processes at all of our sites and plants. We have established key performance indicators (KPIs) on resource efficiency and material yield, energy use, water use, waste management, and emissions. All data is thoroughly reviewed and validated by each level of management throughout our operations.

In addition, these key drivers are integrated into all our capex projects and operational initiatives, and savings are tracked.

## PREVENTING PLASTIC PELLET LOSS WITH OPERATION CLEAN SWEEP<sup>1</sup>

Environmental management does not stop at the company boundaries. INEOS Styrolution also works with external partners to reduce its environmental impact. For example, we work to eliminate pellet loss and are a signatory to Operation Clean Sweep (OCS). OCS is an international joint industry program run by the American Chemistry Council's Plastics Division, PlasticsEurope and the Society of the Plastics Industry. It aims to prevent plastic pellet loss during production and transportation and thus its ultimate release into the aquatic environment.

<http://www.opcleansweep.eu>

With the shared goal of zero pellet loss, we are embedding the initiative's good practices on containment of pellets in our management systems, at all global INEOS Styrolution sites and into day-to-day practices. On that note, we encourage all of our employees, our contractors, suppliers and customers to also commit to OCS, to take responsibility towards marine litter and support this initiative by implementing the respective key actions against plastic pellet loss.

<http://www.opcleansweep.org>



### 4.3.1 ENVIRONMENTAL DATA

#### KPI MEASUREMENT AND BOUNDARIES

##### Boundary

All data in this chapter represent a summary of environmental impacts measured for all INEOS Styrolution assets and legal entities at our 15 sites worldwide.

##### Scope

Performance data refer to the net impacts of INEOS Styrolution’s production activities, including emissions and consumption of resources. Only the net impacts of INEOS Styrolution are reported. Treatment of waste water or air emissions resulting from activities on behalf of neighboring plants are not reported.

For 2016, we expanded the scope of the reported indicators. Last year, we reported on energy use, water, waste water, waste, greenhouse gas emissions as well as NOx. For this year, we are also reporting on resource efficiency and VOC emissions. We defined sustainability targets for our most important material topics related to the environment. Some give a set percentage decrease, while others are related to an improved management approach. For next year’s report, we will further define indicators, such as water, energy and waste by source, type and destination.

##### Method and accuracy

Water, waste water, waste and energy use are based on conducted measurements. In case no measurements have been taken, estimates and assumptions have been made. For air emissions from combustion gases (NOx) and solvent air emissions (VOC), our measurements and estimates comply with

the local legal requirements for monitoring and reporting. As measuring equipment is not available at all sites, we used an inaccuracy limit for measuring, monitoring and collection of data for emissions and consumption of +/- -3%.

#### RESOURCE EFFICIENCY AND WASTE REDUCTION<sup>1</sup>

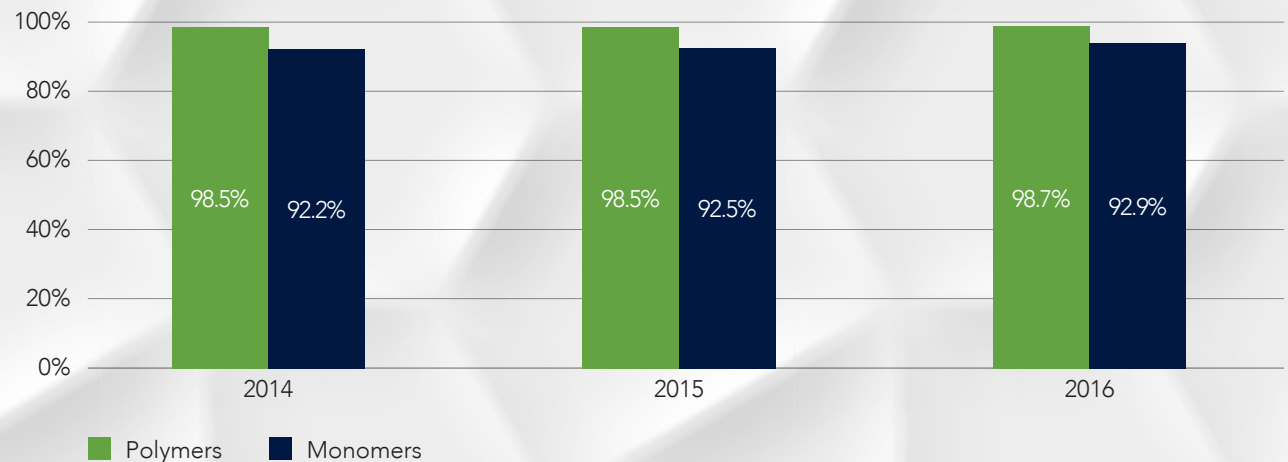
Resource efficiency is central to our business and fundamental to our operational excellence. It is a driver in our numerous capital expenditures and improvement initiatives as well as in our daily work at our production sites. It is reviewed and internally reported, and we express our performance in resource efficiency as relative to material yield. The raw material yield is defined as polymer or monomer produced per unit of raw materials used and excludes by-products. In other words, producing more material with less input is the desired outcome. The diagram below illustrates the development of the material yield for our polymers and for ethylbenzene styrene monomer

(EBSM) over the past years. The yield for both polymers and monomers are at a stable high level. The monomer yield is lower due to more by-products being produced, which is intrinsic to the EBSM production process.

For INEOS Styrolution, waste management starts with optimal resource efficiency and the elimination of waste wherever possible. When waste is produced, we focus first on product recycling, followed by energy recovery, then incineration. Only in the absence of all these options is waste landfilled. We began measuring our global performance in waste management in 2014.

For these measurements, the definition of waste is in accordance with international standards and potentially stricter national legislation. Waste includes what can be recycled, recovered for production of energy, incinerated, composted

#### RESOURCE EFFICIENCY: RAW MATERIAL YIELD<sup>2</sup>



or landfilled. It consists mainly of process waste, waste from INEOS Styrolution waste water treatment plants and waste resulting from turnarounds, demolition projects at sites, and in a minor quantity, household waste. The main sources are sludge from waste water treatment plants, the process waste from ABS Standard and specialties, and the catalyst replacement in ethylbenzene styrene monomer (EBSM). This last waste stream is replaced less than annually, which explains, together with waste from projects, the deviations in waste volume over time.

INEOS Styrolution complies with local waste management regulations. Waste tonnage varies according to the chemical processes in place and the presence of on-site utilities, such as waste water treatment plants.

13 out of our 15 production sites were able to reduce their specific waste quantities in 2016. This reduction was achieved due to several investment projects that enabled improved and more efficient operations, due to running our plants at full capacity as well as due to longer and more reliable production campaigns. Additional initiatives, for example process-integrated measures for better waste treatment to further reduce waste, were also implemented in 2016.

Due to a series of smaller process and waste handling improvements, we saw significant waste reductions of up to 10% in our production site in Vadodara, India. Our production site in Ulsan, Korea, invested in a better sludge dewatering technology and as a consequence was able to reduce over 22% of its specific waste. Only our Asian-Pacific production site

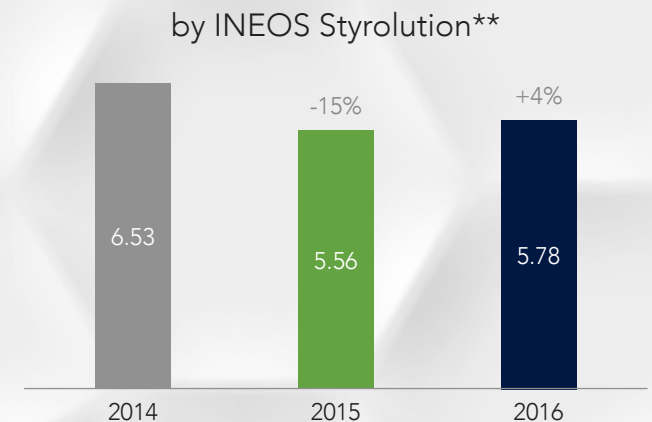
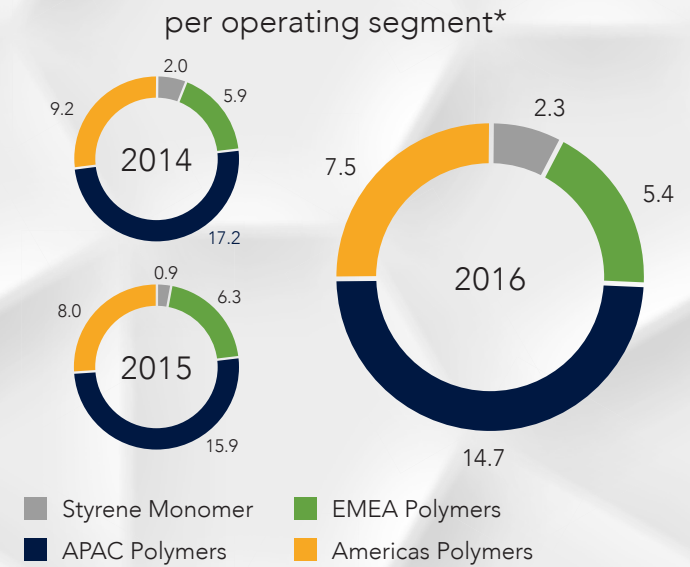
in Map Ta Phut, Thailand, had a slight increase in waste due to project waste and disposal of oligomers which were not suitable for reuse in the process. In 2016, all INEOS Styrolution polymer production sites achieved an overall reduction of 8% in specific waste.

For our ethylbenzene styrene monomer (EBSM) plants, higher waste resulted from the periodic replacement of the catalyst in the dehydrogenation reactors as well as from other improvement projects which generated scrap insulation and other materials. We also performed a scheduled plant turnaround at our styrene monomer production site in Sarnia, Canada, in 2016. During this turnaround measures were implemented to improve the overall efficiency of our production. In addition, energy optimization measures were also implemented. The turnaround itself, however, affected our waste performance in the year of the turnaround. The turnaround-related increase in waste in Sarnia outweighed the global reduction of waste of other production sites and, therefore, led to a global increase of 4% in specific waste.

In 2016, our EBSM production sites in the Americas qualified waste stemming from spent dehydrogenation catalysts to be sent to waste recovery instead of sending it to landfill. This goes hand in hand with our intent to minimize waste to landfill.

Next year, INEOS Styrolution will separately report waste in terms of styrenic polymers and EBSM and further specify the sources of waste and types of waste management.

## SPECIFIC WASTE 2014 – 2016 (KG/ TON PRODUCED)



\* Consists of total waste per operating segment divided by tons produced per operating segment.

\*\* Consists of total waste produced by INEOS Styrolution divided by tons produced by INEOS Styrolution. This equals the weighted average of the specific operating segment's waste.

**ENERGY EFFICIENCY<sup>1</sup>**

Conscious energy use is integral to INEOS Styrolution's resource efficiency efforts and is a key driver in all optimization projects. We implemented energy management systems and usage of energy is measured, monitored and internally reported and evaluated. Over the past decade, we have completed a significant number of energy reduction projects, and each year our capex program includes numerous initiatives to improve energy use. The graphics on the right show specific energy use (total energy use at INEOS Styrolution sites per total tons produced).

Energy use at INEOS Styrolution across our 15 sites involves fossil fuel, electricity, steam and other utilities, such as compressed air. Energy use varies according to the type of chemical processes in place, site-specific conditions, total tons produced as well as turnarounds.

Compared to 2015, our polymers production sites achieved a global reduction of 4% in specific energy use in 2016. This was realized mainly due to a significant reduction at our Altamira production site in Mexico following the replacement of an

older unit with a more energy-efficient cogeneration unit. The good overall performance in energy efficiency is also linked to a further increase in our global production volumes, thereby making our operations more resource-efficient. In addition, annual energy improvement projects at our sites supported the further reduction in energy use.

Our four EBSM plants represent 80% of our global energy use. Energy efficiency performance decreases over the lifetime of a catalyst which is in the range of three to four years. Plant turnarounds can also impact specific energy use. Due to the 2016's turnaround in Sarnia as well as due to the aging catalyst in Texas City and Bayport, USA, we saw a slight increase in energy use of 2%.

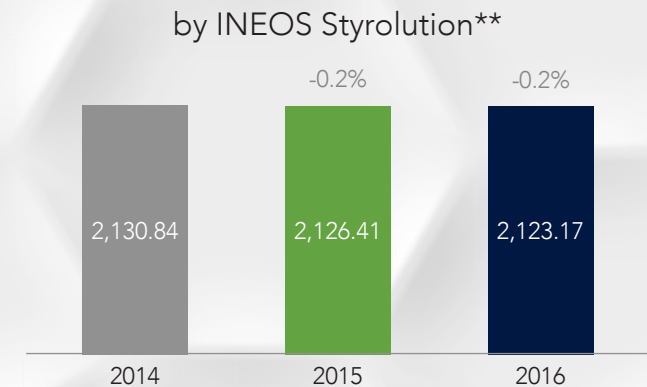
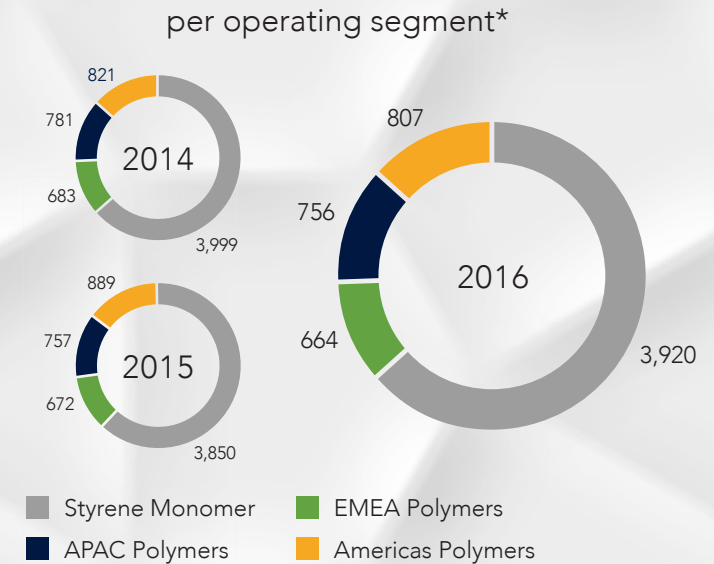
The combination of all these energy reduction projects of our global sites led to an overall further reduction of 0.2%.

From next year onwards, we will report our specific energy consumption separately for styrenic polymers and for EBSM as well as further specify the source of energy use.

Our INEOS Styrolution production site in Altamira, Mexico.



**SPECIFIC ENERGY CONSUMPTION 2014 – 2016**  
(KWH/ YEAR)



\* Consists of total energy consumption per operating segment divided by tons produced per operating segment.  
 \*\* Consists of total energy consumption produced by INEOS Styrolution divided by tons produced by INEOS Styrolution. This equals the weighted average of the specific operating segment's energy consumption.

**WATER AND WASTE WATER REDUCTION**

Water is used directly in our production. The reporting of the total volume of water use by source contributes to our understanding of both overall impact and potential risks. Clean freshwater is becoming increasingly scarce, and that scarcity can impact those production processes that rely on large volumes of water. Therefore, water consumption and conservation as well as waste water generation and reuse are an integral part of our focus on resource efficiency. INEOS Styrolution plants, especially those in water-stressed areas, are committed to responsible water use and exploring measures for implementing sustainable water management systems.

**WATER USE<sup>1</sup>**

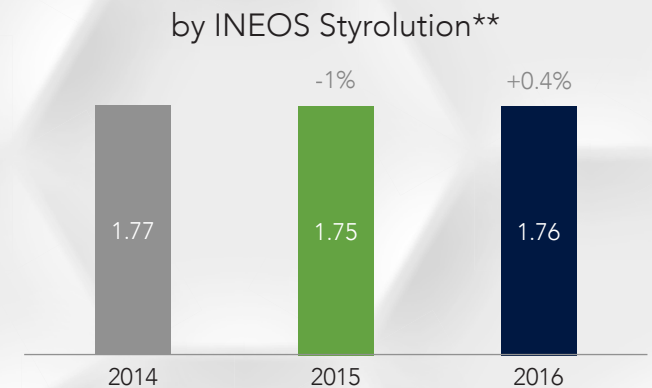
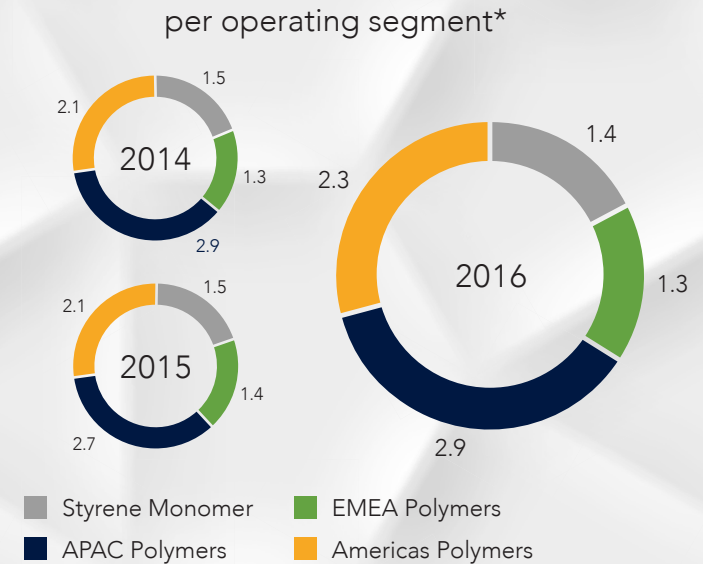
Process water includes all water used at production sites except for cooling water. Water is drawn from surface water, wells or is imported from neighboring sites. For 2015 to 2016, water use remained stable. This was achieved thanks to water recycling initiatives at our production sites in Antwerp, Belgium, and Schwarzheide, Germany. However, some technical issues in our cooling towers and heat exchangers caused a temporary stop in our water recycling processes at several of our production sites. This impacted our water use data for 2016. Most of these issues were already addressed or will be repaired during the next shutdown. Our production site in Ulsan, Korea, yielded a 7% reduction in the plant's water consumption. This is largely owing to outsourced compounding activities. As such activities are neither carried out nor monitored on our premises, they are also excluded from our present scope.



“OVERALL, OUR COMPANY’S SUSTAINABILITY PROGRAM POSITIONS OUR EMEA PLANTS WELL FOR THE FUTURE. ALL OUR SITES ARE ISO 50001 CERTIFIED AND HAVE IMPLEMENTED MANY SPECIFIC ENERGY-SAVING PROJECTS. MOST SITES HAVE INSTALLED CLOSED-LOOP UNDERWATER PELLETIZERS AND WASTE WATER PRODUCTION HAS BEEN SIGNIFICANTLY REDUCED IN ANTWERP. TO MINIMIZE AND EVENTUALLY ERADICATE PELLET LOSS, ALL SITES HAVE IMPROVED THEIR HOUSEKEEPING AS PART OF OUR ASSET CARE PROGRAM. FILTERS PREVENTING PELLETS FROM ENTERING WASTE WATER ARE BEING INSTALLED AT ALL SITES.”

Wouter Van engelandt – Vice President Manufacturing EMEA

**SPECIFIC WATER USE  
EXCL. COOLING 2014 – 2016**  
(M<sup>3</sup>/ TON PRODUCED)



\* Consists of total water use per operating segment divided by tons produced per operating segment.  
\*\* Consists of total water use produced by INEOS Styrolution divided by tons produced by INEOS Styrolution. This equals the weighted average of the specific operating segment's water use.

**WASTE WATER<sup>1</sup>**

The amount and quality of water discharged by our sites is directly linked to both ecological impact and operational costs. By progressively improving the quality of discharged water and reducing volumes, INEOS Styrolution reduces its environmental impact.

Waste water refers to all water discharged on-site, which is always done in accordance with local legislation. It consists of all process waste water including contaminated cooling water. This can be direct discharge to surface water after internal water treatment, or discharge to external waste water treatment plants.

Compared to 2015, we were able to reduce the amount of specific waste water over the previous year by another 2%. This is mainly due to enhanced water management and recycling efforts at our EBSM production site in Antwerp. Thanks to its waste water treatment and reuse systems, Antwerp was able to supply a significant amount of 400,000 m<sup>3</sup> of treated waste water to a neighboring plant in the large manufacturing complex for reuse. A state-of-the-art closed-loop cooling water system at our production site in Wingles, France, was installed while upgrading the pelletizers and generated a water reduction of 225,000 m<sup>3</sup>. Thanks to enhanced monitoring and process optimization projects, a 31% water reduction was achieved at our production site in Schwarzheide.

Our INEOS Styrolution production site in Antwerp, Belgium.

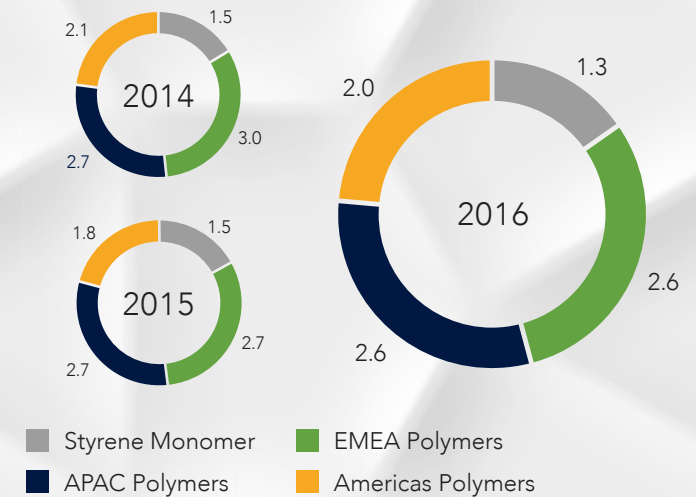


**SPECIFIC WASTE WATER**

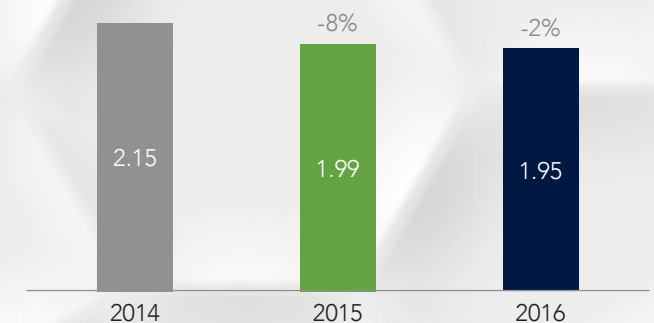
**2014 – 2016**

(M<sup>3</sup>/ TON PRODUCED)

per operating segment\*



by INEOS Styrolution\*\*



\* Consists of total waste water per operating segment divided by tons produced per operating segment.  
 \*\* Consists of total waste water produced by INEOS Styrolution divided by tons produced by INEOS Styrolution.  
 This equals the weighted average of the specific operating segment's waste water.

**AIR EMISSIONS<sup>1</sup>**

As part of our sustainability program, we place increasing value on reducing our emissions. Air emissions from manufacturing and combustion gases are monitored at each site. We treat our air emissions from our production sites with methods, such as condensation, filtration, absorption or incineration, which we do in line with national and local legislation requirements. The results are reviewed and evaluated for further optimization. Diffuse air emissions in operations are monitored via leak detection and repair procedures.

**VOLATILE ORGANIC COMPOUNDS (VOC) EMISSIONS**

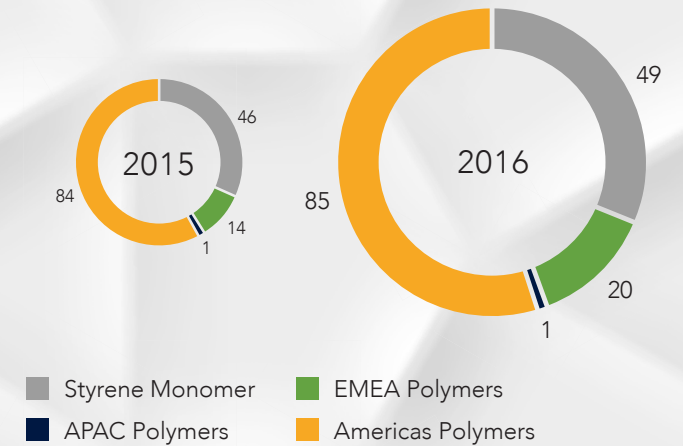
As of 2015, INEOS Styrolution collects and monitors VOC emissions data, which our sites are also legally required to report on. From 2015 to 2016, we reported a 6% increase in specific direct VOC emissions, mainly due to increased VOC emission measurements at our production sites in Antwerp and Sarnia. Further VOC monitoring and reduction measures remain an ongoing priority and will be implemented at both these sites in 2017 and 2018. Our production site in Texas City reduced its emissions by 17% due to improved temperature control of our styrene vessels. VOC emissions at our other production sites remained stable.

Our INEOS Styrolution production site in Sarnia, Canada.

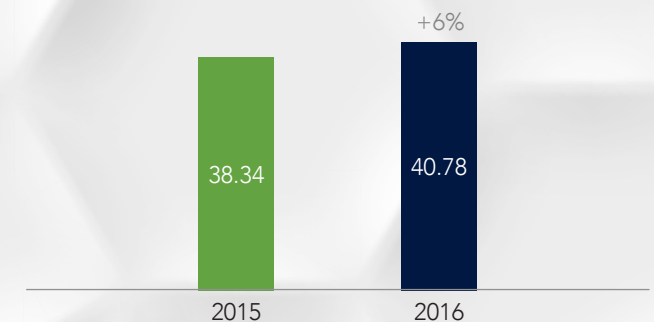


**SPECIFIC DIRECT VOC EMISSIONS 2015 – 2016**  
(G/ TON PRODUCED)

per operating segment\*



by INEOS Styrolution\*\*



<sup>1</sup> G4-EN15/ -EN16/ -EN18/ -EN21

\* Consists of total VOC emissions per operating segment divided by tons produced per operating segment.  
 \*\* Consists of total VOC emissions produced by INEOS Styrolution divided by tons produced by INEOS Styrolution. This equals the weighted average of the specific operating segment's VOC emissions.

**CO<sub>2</sub> EMISSIONS**

INEOS Styrolution measures and monitors its carbon dioxide footprint on a yearly basis. This covers the emissions from our activities or utilities that we source from third parties. It does not cover carbon dioxide emissions from our supply chain.

The measured CO<sub>2</sub> emissions cover the scope 1 and 2 CO<sub>2</sub> emissions as defined in the Greenhouse Gas Protocol. Scope 1 emissions include fossil fuel consumption at our sites, process-related CO<sub>2</sub> emissions, and emissions from cooling and transportation at our sites. Scope 2 emissions include the CO<sub>2</sub> emissions related to sourced electricity and utilities, such as steam. It covers also other greenhouse gas emissions, which are converted to CO<sub>2</sub> equivalent.

Scope 2 emissions are foremost based on conversion factors delivered by electricity or utility providers. Secondly, they are based on nationally or regionally defined conversion factors and in case of non-availability they are based on the technology used.

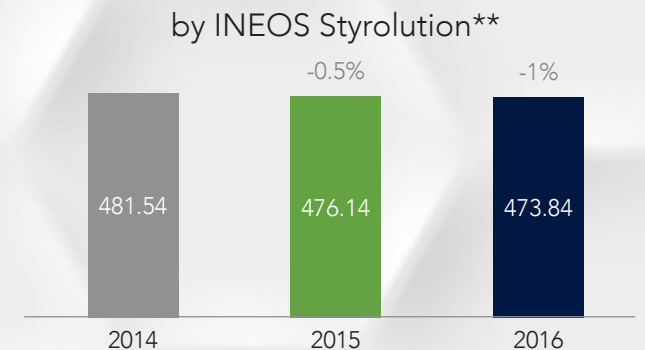
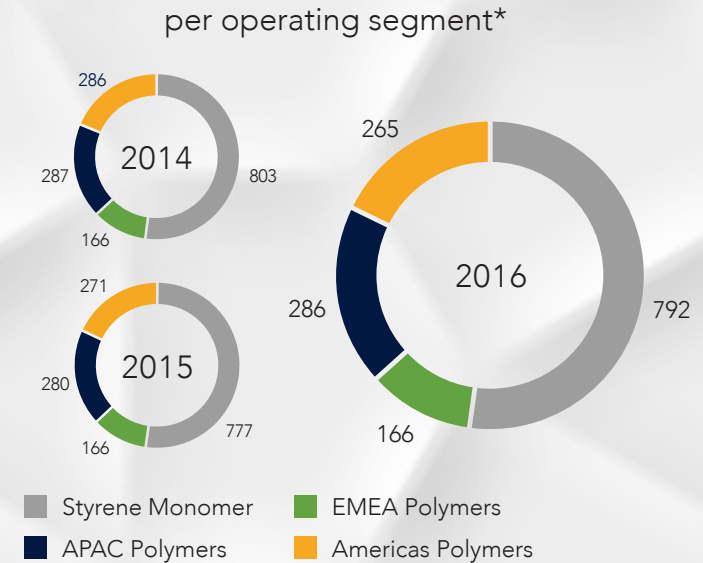
The evolution of our CO<sub>2</sub> emissions is similar to that of our energy use (see specific energy use). However, the slight reduction of 0.5% of CO<sub>2</sub>-specific values from 2015 to 2016 can be explained by the reduction of our energy consumption by 0.2% as well as by a slight shift in energy sources with different CO<sub>2</sub> impact, for example, variation in use of gas, electricity or steam.



FOR 2016, THE NORTH AMERICAN REGION HAS CONTINUED ITS EFFORTS TO REDUCE EMISSIONS AND IMPROVE ENERGY EFFICIENCY. WITH THE COMPLETION OF THE SARNIA IMPROVEMENT PROJECTS, WE ACHIEVED SIGNIFICANT IMPROVEMENTS IN OUR RAW MATERIAL YIELDS AND ENERGY EFFICIENCY. ADDITIONALLY, WE ARE IMPLEMENTING FURTHER PROJECTS TO REDUCE OUR EMISSIONS THROUGH INVESTMENTS AND ENHANCED FUGITIVE MONITORING. WE ARE ALSO WORKING DILIGENTLY ACROSS THE REGION TO SHARE KNOWLEDGE AND BEST PRACTICES TO ACCELERATE OUR EFFORTS.

Cathy Culpepper – Vice President Manufacturing Americas

**SPECIFIC CO<sub>2</sub> EMISSIONS**  
**2014 – 2016**  
(KG/ TON PRODUCED)



2014 – 2015 data are adjusted to be in line with definition of scope 1 and 2 of Greenhouse Gas Protocol.

\* Consists of total emissions per operating segment divided by tons produced per operating segment.  
\*\* Consists of total emissions produced by INEOS Styrolution divided by tons produced by INEOS Styrolution. This equals the weighted average of the specific operating segment's emissions.

**Nitrogen oxide emissions**

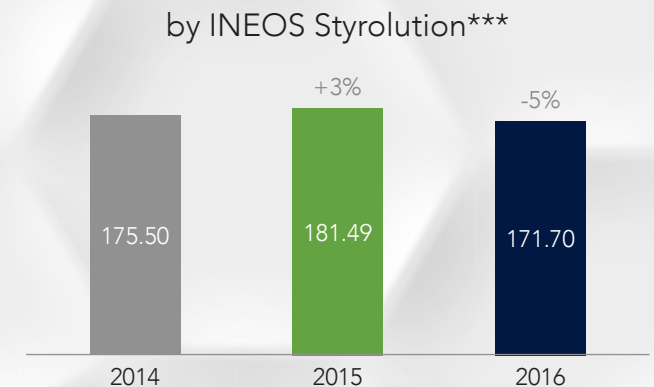
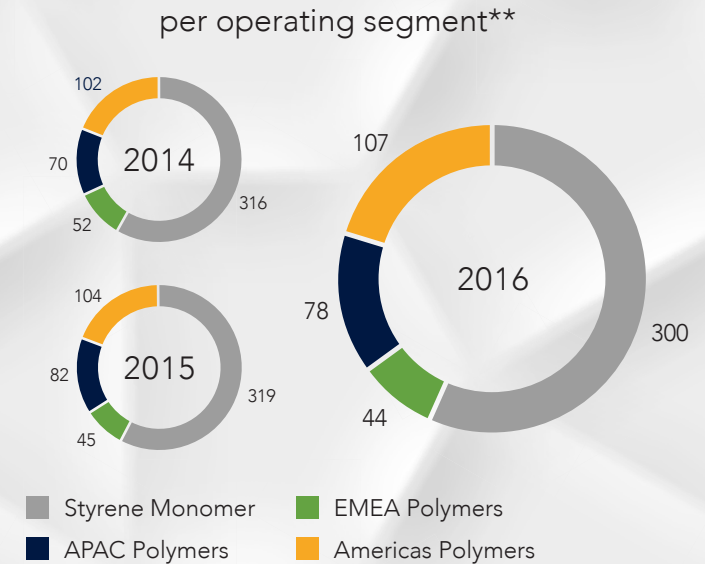
The combustion of gases on-site results in air emissions, and nitrogen oxide (NOx) is the most significant component of these combustion gases. The main sources for combustion gases are from internal steam production and from flares and other air treatments, such as thermal oxidizers (RTOs). NOx emissions from our production assets are reported and measured according to local legislation requirements at all production sites. NOx emissions resulting from the export of utilities are not included.

We saw an overall 5% reduction in specific NOx from 2015 to 2016, which is mainly due to the mentioned planned turn-around at our production site in Sarnia. Lower specific NOx emissions at our production site in Map Ta Phut, Thailand, also contributed to globally lower NOx data. Map Ta Phut's lower specific NOx emissions were mainly due to increased production volumes and some other operational measures taken. In Vadodara, India, a reduction of 23% of NOx emissions was achieved by switching from heavy fuel to natural gas. However, we also experienced increases in NOx at some sites. This was due to technical issues, such as leakage in heat exchangers or control of burners. All of these are being addressed by further maintenance activities.

**OVERVIEW 2014 – 2016 VERSUS TARGETS**

ASPECT	EVOLUTION 2014 – 2016	TARGET 2014 – 2018
Energy	-0.4%	
Greenhouse gas emissions	-1.5%	
Waste	-11.5%	-10%
Water	-0.2%	-3%
Waste water	-9.5%	-7%
NOx	-2.2%	
VOC	+6.4%	-7%
ISO 50000 and EMS coverage	40%	
ISO 14000 coverage	60%	100%*

**SPECIFIC DIRECT NOx EMISSIONS 2014 – 2016**  
(KG/ TON PRODUCED)



\*\* Consists of total NO<sub>x</sub> emissions per operating segment divided by tons produced per operating segment.  
\*\*\* Consists of total NO<sub>x</sub> emissions produced by INEOS Styrolution divided by tons produced by INEOS Styrolution. This equals the weighted average of the specific operating segment's NO<sub>x</sub> emissions.

\* By end of 2019

### 4.3.2 ENVIRONMENTAL FOOTPRINT HIGHLIGHT EXAMPLE: ASIA-PACIFIC

The following section highlights some examples of operational achievements at our INEOS Styrolution manufacturing sites in Ulsan, Korea, Map Ta Phut, Thailand, and our Indian manufacturing sites in Dahej and Vadodara. Results reported in this chapter apply only to INEOS Styrolution's manufacturing plants at the above-mentioned sites, some of them operating within large manufacturing complexes that are shared by multiple chemical companies.

#### SITE-WIDE INITIATIVES

Like most INEOS Styrolution sites, our Asian production sites are integrated facilities where energy, utilities, by-products, intermediate product streams and waste can be exchanged to maximize the units' overall efficiency. For example, heat produced by one unit can be captured and used to drive a process for another. This integration not only drives greater efficiency, it helps us improve our environmental performance

in areas, such as emissions, water and energy use, and waste. Through the cooperation with neighboring companies that operate within large manufacturing complexes, our facilities are able to minimize their environmental impact by re-using and upgrading by-products and utilities on-site, where possible. With respect to Operation Clean Sweep (OCS), our Asian sites are currently implementing recommended measures for zero pellet loss on-site. In addition, housekeeping is being improved which is also part of our global Asset Care program. Each of our Asian plants continually look for opportunities to improve their environmental performance in line with the company's guidelines and to identify and implement at least two to three such projects every year.

#### PLANT-LEVEL INITIATIVES IN ULSAN, KOREA

The INEOS Styrolution production site in Ulsan consists of six production lines that produce Polystyrene (PS), acrylonitrile butadiene styrene (ABS) and acrylonitrile styrene acrylate (ASA). Compounding activities have been outsourced since 2015. Our Ulsan site is certified in ISO 9001, ISO 14001 and ISO 50001.



Rear view of the new sludge dehydrator facility at the Ulsan site.



Supplementary facilities of the mechanical dehydrator to dewater the sludge.



“WE ARE CONTINUOUSLY LOOKING TO IMPROVE OUR PLANTS’ ENVIRONMENTAL PERFORMANCE BY IDENTIFYING AND IMPLEMENTING OPTIMIZATION MEASURES ACROSS THE ASIA-PACIFIC REGION. DEDICATED TEAMS AT PLANT LEVEL ARE ENGAGED IN RUNNING OPERATIONS AS EFFICIENTLY, SUSTAINABLY AND SAFELY AS POSSIBLE EVERY DAY TO MINIMIZE THE SITES’ ENVIRONMENTAL FOOTPRINT.”

Nitan Duggal – SHE Hub Manager Asia-Pacific

### Energy and CO<sub>2</sub> emissions

In addition to receiving the ISO 50001 certification for its energy management system in 2015, the Ulsan site also undertook a systematic and continuous improvement process within the framework of this certification. In this regard, Ulsan identified and implemented two measures to reduce energy use and greenhouse gas emissions. One initiative aims to reduce energy use by replacing two of the site's old injection molding machines, whereas the second initiative aims to reduce greenhouse gas emissions by purchasing steam from an alternative supplier ensuring lower emissions. Both site optimization projects are currently under implementation. Through the combination of these measures, we estimate a reduction of 50% of the site's present CO<sub>2</sub> emissions, which contributes to lower ETS allowances, an emissions trading system for greenhouse gas emissions.

### Waste reduction

In 2015, Ulsan installed a more efficient sludge dehydrator for dewatering the sludge, which was fully implemented and operational by the end of 2015. The more efficient dewatering process reduced the moisture content of the sludge from 75% to approximately 45%, which led to an overall reduction of 22% in specific waste at the site. In addition, we were able to lower the site's oil waste as we did not undergo a shutdown in 2016. As a result of these optimization measures, less waste was emitted and disposed.

### PLANT-LEVEL INITIATIVES IN MAP TA PHUT, THAILAND

The INEOS Styrolution's production site in Map Ta Phut is an integrated site and consists of plants that produce rubber and styrene acrylonitrile copolymer (SAN), as well as a compounding facility that produces acrylonitrile



“OUR MINDSET HAS EVOLVED TO CONSIDER SUSTAINABLE OPERATIONS AT THE SITE LEVEL, WHILE AT THE SAME TIME ADDRESSING LOCAL NEEDS. THEREFORE, THROUGH OUR INITIATIVES, WE DO NOT ONLY REDUCE OUR ENVIRONMENTAL IMPACT AND RUNNING COSTS OF OUR MANUFACTURING SITES, BUT ALSO SUPPORT OUR LOCAL COMMUNITIES BY PROVIDING ENERGY AND CONSERVING RAIN WATER.”

William Gosset – Vice President & Head of Manufacturing Asia-Pacific



butadiene styrene (ABS) and acrylonitrile styrene acrylate (ASA) among others. The Map Ta Phut site is certified in ISO 9001, ISO 14001 and ISO 18001.

Following an investment project with several initiatives focused on water reduction and steam consumption from 2012 to 2014, we continued to focus on energy efficiency through further investment projects between 2014 and 2016. Within the scope of these investment projects, an old inefficient electrical heating system was replaced with gas operated hot oil units. In addition, vacuum pumps were installed in place of steam jet ejectors. These investments resulted in a substantial reduction in emissions, such as waste gas load from SAN units, as well as enhanced product quality and improved work environment.

#### PLANT-LEVEL INITIATIVES IN DAHEJ AND VADODARA, INDIA

INEOS Styrolution India has a production site in Dahej as well as several production sites in Vadodara, India. The site in Dahej produces polystyrene (PS) and the sites in Vadodara produce acrylonitrile butadiene styrene (ABS) and specialties, such as styrene acrylonitrile copolymer (SAN). Our Vadodara sites comprise an R&D and compounding center in Moxi, rubber and compounding facilities in Nandesari, SAN production

in Katol, shore tanks in Kandla as well as windmill farms in Lamba, Dhank and Pransla. All Indian manufacturing facilities are certified in ISO 9001 and ISO 14001.

#### Energy

Since 1995, INEOS Styrolution operates three windmill parks with 40 wind turbines in Lamba, Dhank and Pransla. In 2016, the total electricity produced by all three windmill farms yielded about 6,821 MWh, which equals approximately 15% of the energy consumption of Nandesari (10% transmission loss already deducted). The electricity produced by our wind turbines is fed into the local grid to supply power to the local households. In compensation, our production facilities in Nandesari, Moxi and Katol receive energy credits for their monthly electricity invoices.

#### Waste reduction

Our Vadodara production sites in Moxi, Nandesari and Katol saw a 9% specific reduction of waste in 2016. This reduction was achieved through a series of optimization initiatives, such as optimizing an automated water separation system for the recycled monomers, giving high calorific waste as an alternative fuel to some companies instead of incinerating it on-site as well as reducing the waste

generation of our production site in Katol by shifting their fuel source from furnace oil to natural gas. In addition, the Nandesari site improved the efficiency of their sludge drying bed that dewateres the sludge and therewith reduced the waste sludge volume.

#### Air emissions

The shift from furnace oil to natural gas also improved Katol's environmental performance in terms of air emissions: The site's SO<sub>2</sub> emissions significantly reduced by 11 tons, which equals an 84% reduction. Furthermore, 2.5 tons of NO<sub>x</sub> were reduced compared to the previous year, which corresponds to a 45% decrease in NO<sub>x</sub> emissions.

#### Water conservation

Water conservation has always been a priority at our production sites in India. Therefore, we constructed efficient rain water harvesting facilities in Nandesari, Moxi and Katol. These installations help to conserve rain water through specially constructed rain water pits in order to increase the groundwater level in the long term. In Katol, we also supported the local community to build rain water channels that lead rain water to a local pond. In line with local regulations, our plants in Katol and Dahej use treated water for gardening and landscaping purposes to limit the use of fresh water.



5.0 INEOS STYROLUTION AS  
A RELIABLE EMPLOYER

# EARN TRUST, GROW TOGETHER

Our people are INEOS Styrolution's most important asset. Their creativity, diversity, knowledge, passion and expertise help us achieve a competitive advantage and drive business success.



## 5.1 OUR MISSION: STRIVING TO BE AN ATTRACTIVE, RELIABLE EMPLOYER

INEOS Styrolution fosters sustainable relationships with its employees built on fairness, reliability and trust. As stated in our corporate values, we “value and respect people.” Team spirit and diversity inspire the daily work of our global team. We are committed to offering an appealing working environment with competitive remuneration and benefits as well as attractive opportunities for our employees to grow and develop professionally.

### OUR SUSTAINABILITY TARGETS AS A RELIABLE EMPLOYER

We have defined global sustainability targets for seven focus areas of our business including being a reliable employer. These targets underscore our commitment to continuous improvements and higher transparency. We aim for 80% of our exempt employees to complete employee development interviews by the end of 2018. We will implement management development plans, senior management development plans, and executive development plans across all regions in 2017. We will also conduct a global employee survey for our entire workforce in 2017. We will report on these targets annually to disclose our progress.

### KEY HIGHLIGHTS 2016

#### EMPLOYEE DEVELOPMENT

training programs initiated in all regions

#### WORLDWIDE ROLL-OUT in progress



### SUSTAINABILITY TARGETS

**80%** of exempt employees to have an **EMPLOYEE DEVELOPMENT INTERVIEW** in 2018

Implementation of **MANAGEMENT DEVELOPMENT PROGRAMS** in all regions in 2017, also for senior and executive management

**EMPLOYEE SURVEY** for the entire workforce conducted in 2017



## 5.2 PUTTING OUR MISSION INTO PRACTICE: FOSTERING A HIGH-QUALITY WORKING ENVIRONMENT AND VALUE-DRIVEN TEAM

As the market leader in styrenics, we offer positions ranging from chemical engineering to operations management and business administration. In a competitive, global industry, our success hinges on our ability to attract and retain the most qualified and committed employees in each of the markets we operate. Market conditions and local legislation vary per country, and because of this, our employment strategy is locally driven. Nevertheless, regardless of location, we are committed to offering employees an appealing work environment with competitive remuneration and benefits, as well as attractive opportunities to grow and develop professionally. Global diversity and team spirit characterize our daily work. Our remuneration policy is geared – through higher variable terms – toward an above-average remuneration of employees, and is oriented toward the country-specific conditions within the chemical industry, in all countries in which the company is active. We are always looking for people whose skills and aspirations are an optimal fit for the responsibilities they will undertake. We welcome the best candidates and practice principles of equal opportunity for recruiting and advancement.

### BREAKDOWN OF EMPLOYEES BY SEGMENT 2016<sup>1</sup> (NEW HIRES)

Operating segment	2016 average headcount	Percentage of total headcount	2015 average headcount	Percentage of total headcount	2014 average headcount	Percentage of total headcount
Polymers EMEA	1,183 (96)	37% (40%)	1,179 (109)	38% (34%)	1,147	37%
Polymers Americas	532 (38)	17% (16%)	528 (56)	17% (17%)	565	18%
Polymers Asia-Pacific	967 (58)	31% (24%)	957 (116)	31% (36%)	942	30%
Global Styrene Monomer	320 (17)	10% (7%)	323 (25)	10% (8%)	320	10%
Global functions	166 (33)	5% (13%)	136 (17)	4% (5%)	140	4%
Total	3,168 (242)	100% (100%)	3,123 (323)	100% (100%)	3,114	100%

### GENDER DIVERSITY BY SEGMENT 2016<sup>2</sup> (NEW HIRES)

Operating segment	Male headcount, 2016 average	% of total headcount	Female headcount, 2016 average	% of total headcount	Male headcount, 2015 average	% of total headcount	Female headcount, 2015 average	% of total headcount
Polymers EMEA	963 (74)	81% (77%)	220 (22)	19% (23%)	964 (80)	82% (73%)	216 (29)	18% (27%)
Polymers Americas	429 (33)	81% (87%)	103 (5)	19% (13%)	424 (37)	80% (66%)	104 (19)	20% (34%)
Polymers Asia-Pacific	881 (54)	91% (93%)	86 (4)	9% (7%)	867 (111)	91% (96%)	90 (5)	9% (4%)
Global Styrene Monomer	279 (15)	87% (88%)	42 (2)	13% (12%)	275 (23)	85% (92%)	48 (2)	15% (8%)
Global functions	118 (25)	71% (76%)	48 (8)	29% (24%)	96 (13)	70% (76%)	40 (4)	30% (24%)
Total	2669 (201)	84% (83%)	499 (41)	16% (17%)	2625 (264)	84% (82%)	498 (59)	16% (18%)

Since 2014, we have been tracking changes in our employee demographics by region and business unit based on gender and age. We do not track demographic data based on race because definitions of racial minorities differ from country to country, and collecting such data in some regions is a violation of privacy laws. We are also in the process of introducing a new software system globally, which will not only enable us to provide higher transparency in the future but will also enable us to have a clearer understanding of the impacts of our recruitment and retention strategies.

### EMPLOYMENT DEMOGRAPHICS DATA

In 2016, INEOS Styrolution's workforce averaged 3,168 employees, including permanent and temporary employees. Of the 3,168 employees, 532 work for Americas Polymers, 967 for Asia-Pacific Polymers, 1,183 for EMEA Polymers, 320 for Styrene Monomer, and 166 employees have a global role. 135 employees hold senior management positions, out of which 88% are male and 12% are female.

### DIVERSITY & EQUAL OPPORTUNITY

As a global company, internal collaboration and geographic mobility make employee diversity integral to our work. With 15 manufacturing sites in nine countries and 23 sales offices around the world, our employees are accustomed to working with people of diverse cultural backgrounds.

We truly believe in equal employment opportunity and diversity and act accordingly. We apply equal opportunities for all applicants and employees regardless of gender, age, nationality, religion, race, or cultural background.

[For our grievance systems and our Code of Conduct, please refer to chapter 7.](#)

## GENDER DIVERSITY BY REGIONAL HEADQUARTERS 2016<sup>1</sup> (NEW HIRES)

Regional headquarters	Male headcount, average	Percentage of total headcount	Female headcount, average	Percentage of total headcount
Global/EMEA (Frankfurt)	193 (33)	56% (60%)	150 (22)	44% (40%)
EMEA Commodities/ Standard Products (Rolle)	10 (0)	71% (0%)	4 (0)	29% (0%)
Americas (Aurora)	92 (9)	60% (75%)	60 (3)	40% (25%)
Asia-Pacific (Singapore)	16 (0)	56% (0%)	13 (0)	44% (0%)
Total	301 (42)	57% (63%)	222 (25)	43% (37%)

## BREAKDOWN OF SENIOR MANAGEMENT BY AGE 2016<sup>2</sup>

Age	Male	Female
over 61	11	2
56 – 60	23	2
51 – 55	28	3
46 – 50	36	5
41 – 45	16	2
36 – 40	5	1
31 – 35	0	1
below 35	0	0
Total	119	16



## GENDER

Among INEOS Styrolution employees globally, 84% are male and 16% are female. Higher gender diversity is evident in our three regional headquarters, where categories of professional function are broader. The combined employee populations at our three regional headquarters average 57% male and 43% female.

## AGE

INEOS Styrolution believes that a diversity of generations ensures safe and reliable operations and facilitates the kind of dialogue needed for innovation and continuous improvement. Age diversity also assures long-term viability of the company by providing greater flexibility in succession planning for management and leadership. For this reason, we track age diversity as well as employee turnover in each of our business units and regions. To further drive generational balance, we focus on tailor-made training and succession planning for all employees globally. The average age of INEOS Styrolution employees in 2016 was 48 years.

## GLOBAL EMPLOYEE TURNOVER<sup>1</sup>

INEOS Styrolution strives to provide a setting for rewarding, life-long careers. We track both voluntary exits (resignations) and involuntary exits (redundancies, retirements and terminations). In 2016, 195 employees left INEOS Styrolution, which translates to a global employee turnover of 6.2%. Compared to 2015, turnover rate decreased by 2.1%. Voluntary attrition was 2.3% and an additional 1.3% were retirements.

In order to reduce our voluntary departures, we are working to get a better understanding of the motivations of those who resign. In 2016, we tracked voluntary departures with more detailed categories. We are implementing processes to make exit interviews consistent across all regions and include more job levels. In addition to this new globally structured process, we are expanding our management development program to include the Americas and the Asia-Pacific region.

## PERSONAL DEVELOPMENT AND PERFORMANCE MANAGEMENT<sup>2</sup>

INEOS Styrolution's performance management process is designed to provide the company and its employees with a consistent and fair process for aligning goals and performance expectations. We strive to have every employee take advantage of meeting with their supervisor for a review of performance at least annually. In order to improve the performance of all employees, every employee and their direct manager form an annual target agreement consisting of specific, actionable goals. Feedback is formalized in an appraisal at the end of the year, where performance against the goals of the target agreement are discussed. To help set the stage for the annual review, feedback is gathered and calibration meetings are undertaken to help make the appraisal process meaningful across the wide diversity of global jobs.

An employee development interview process, which was introduced for exempt employees in Europe in 2014, is now

## EMPLOYEE TURNOVER 2016<sup>1</sup>

	Headcount 2016	Percent	Headcount 2015	Percent
Resignations	73	2.3%	69	2.2%
Terminations	30	0.9%	47	1.5%
Redundancies	5	0.2%	64	2.0%
Retirements	41	1.3%	37	1.2%
Others*	46	1.5%	43	1.4%
<b>Total</b>	<b>195</b>	<b>6.2%</b>	<b>260</b>	<b>8.3%</b>

\* Deceased, disabled, end of temporary contract, probation period failure, to other INEOS company

## BREAKDOWN OF EMPLOYEE TURNOVER BY SEGMENT 2016<sup>2</sup>

	Headcount	Percent*
Polymers EMEA	87	7.4%
Polymers Americas	21	3.9%
Polymers Asia-Pacific	55	5.7%
Global Styrene Monomer	17	5.3%
Global functions	15	9.0%
<b>Total</b>	<b>195</b>	<b>6.2%</b>

\* Percentage of total turnover

being rolled out for exempt employees worldwide. The employee and his or her manager discuss skills needed to perform their work, skills that might be needed to fulfill future requirements and aspirations, and professional development steps that can be taken to enable the acquisition of those skills. Under this process, an interview is mandatory at least every two years.

95% of employees report having an annual performance review with their supervisor. While geographic transfers, temporary leaves, recent hires, and job changes within INEOS Styrolution prevent achieving 100% participation in these processes, the expectation of the company is that all employees participate in target agreement, appraisals, and employee development interviews. In 2015, 64% of employ-

ees had an employee development interview with their supervisor. Employee development interviews will be held on a regular basis, at least once in every 24 months.

In 2016, the roll-out of the employee development interviews was prepared, to be globally implemented in 2017.

INEOS Styrolution has targeted that 80% of its exempt employees complete employee development interviews by the end of 2018.

As part of its commitment to age, diversity, succession planning, and providing for life-long careers, INEOS Styrolution is implementing management development plans, senior management development plans, and executive development plans.



### EMPLOYEE TURNOVER BY GENDER 2016<sup>1</sup>

Operating segment	Male headcount, average	Percentage of total headcount	Female headcount, average	Percentage of total headcount
Polymers EMEA	66	76%	21	24%
Polymers Americas	14	67%	7	33%
Polymers Asia-Pacific	52	95%	3	5%
Global Styrene Monomer	15	88%	2	12%
Global functions	8	53%	7	43%
Total	155	79%	40	21%

### EMPLOYEE DEVELOPMENT INTERVIEW PROCESS FOR EXEMPT EMPLOYEES<sup>2</sup>

Exempt employees	Percent
Exempt employees who report having a target agreement/ annual performance review with their manager	95%*
Exempt employees who report having an employee development interview	64%*

\* Equally distributed among men and women

### OPERATIONAL CHANGE AND COLLECTIVE BARGAINING<sup>1</sup>

INEOS Styrolution makes every effort to give a reasonable notice period to employees impacted by significant change, and we comply with all local laws regarding advanced notification of operational change. INEOS Styrolution has a proven history in recognizing and respecting all labor and employment laws in the countries in which it operates. INEOS Styrolution gives its employees freedom to organize and collectively bargain. The company does not intend to impair the rights of any employees included in any collective bargaining agreement, or prohibit the lawful exercise of any rights guaranteed by any applicable legislation. In 2016, 66% of INEOS Styrolution’s workforce was covered by collective bargaining agreements.

We have restated our figures for 2015 below due to a miscalculation in last year’s report. Compared to 2015, the percentage of employees covered by collective bargaining agreements went up from 63% to 66%. The significant increase in the Asia-Pacific region from 550 in 2015 to 624 in 2016 is because our production site in Dahej, India, was unionized in 2016.<sup>2</sup>

INEOS Styrolution keeps employees well informed of company news and operational changes through a variety of channels. Global, business and functional specific news is communicated through our global intranet that can be accessed by any INEOS Styrolution employee. In addition, leaders cascade communications through the organization to the employees via town hall meetings, departmental meetings, and trainings.

### COLLECTIVE BARGAINING BY REGION<sup>3</sup>

Region	Number of employees covered by collective bargaining agreement, 2016	Percent	Number of employees covered by collective bargaining agreement, 2015	Percent
EMEA	1238	87%	1189	86%
Americas	244	31%	244	31%
Asia-Pacific	624	64%	550	57%
Total	2106	66%	1983	63%



“OUR FUTURE AS AN ORGANIZATION IS DEFINED BY OUR GREATEST ASSET – OUR PEOPLE. BY CONTINUALLY INVESTING IN

OUR PEOPLE, WE BUILD A SUSTAINABLE FOUNDATION FOR BETTER EMPLOYEE ENGAGEMENT, STRONGER RETENTION, AND ATTRACTIVENESS AS THE EMPLOYER OF CHOICE IN OUR LOCAL MARKETS.”

Marcia Nicol – Human Resources Director Americas

“HIGHLY ENGAGED EMPLOYEES ARE OUR CORE STRENGTH. TO FURTHER ADVANCE AND GROW PROFESSIONALLY, WE INVEST IN IMPROVING THEIR SKILL SET AND EXPERTISE BY OFFERING THEM OPPORTUNITIES FOR PERSONAL AND PROFESSIONAL DEVELOPMENT.”

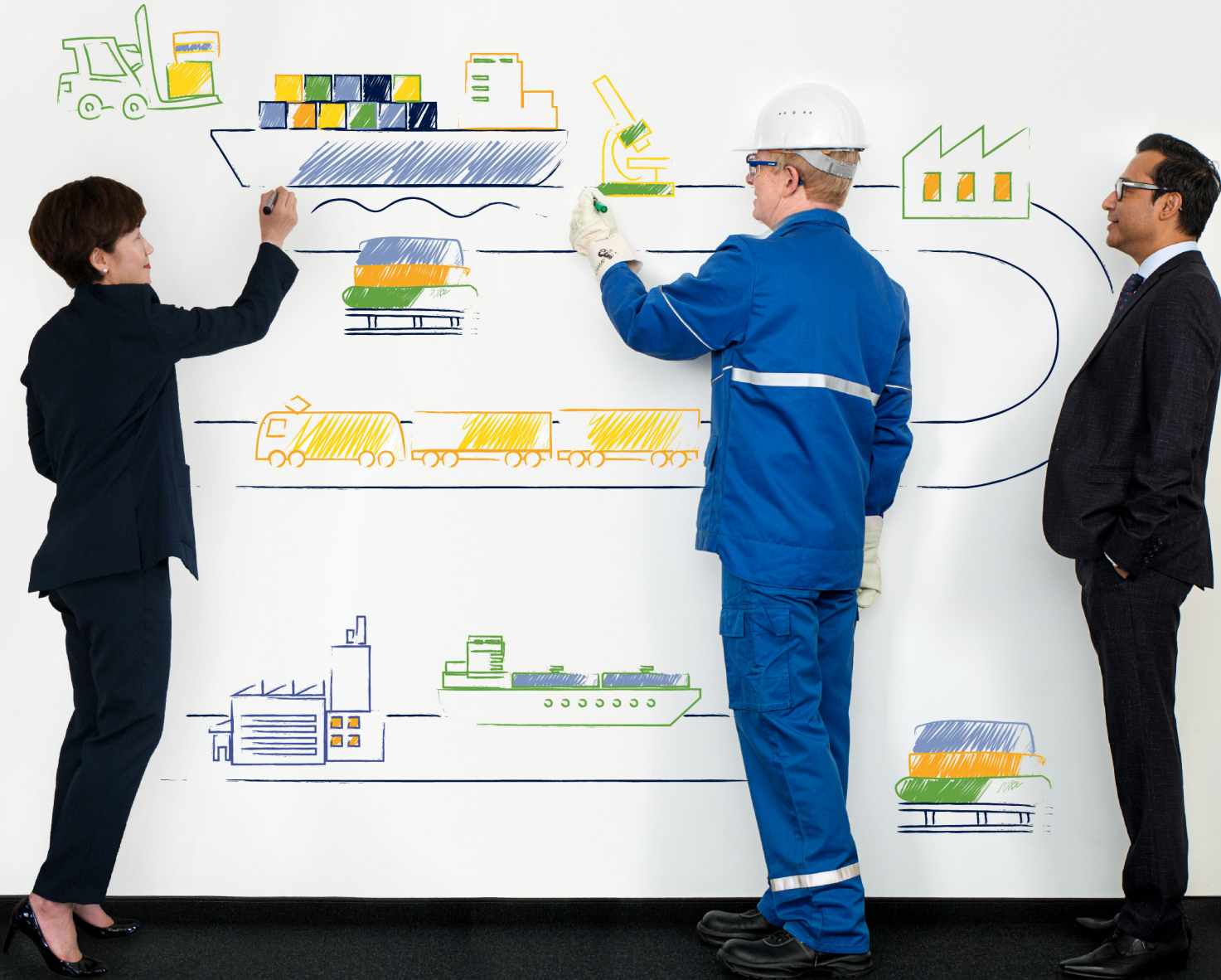


Yan Tao – Human Resources Director Asia-Pacific

<sup>1</sup> G4-LA4/ -HR-4, <sup>2</sup> G4-22, <sup>3</sup> G4-11/ -LA4

6.0 A RELIABLE PARTNER  
TO SUPPLIERS

# ENCOURAGING SUSTAINABILITY ALONG THE VALUE CHAIN



Our efforts to monitor and enhance our sustainability performance are grounded in the activities of our own business. We believe, however, that our overall responsibility is not limited to our own manufacturing sites. We therefore examine sustainability performance along the entire styrenics supply chain, encouraging our suppliers to commit to high standards.

## 6.1 OUR MISSION: MOTIVATING OUR SUPPLIERS IN ORDER TO ENHANCE SUSTAINABILITY STANDARDS ALONG THE SUPPLY CHAIN

Together with our various supply chain partners, we ensure efficient and effective production planning and execution as well as filling and storing of finished and intermediate material, based on customer demand and requirements.

INEOS Styrolution chooses its suppliers carefully, taking their sustainability standards into account. We expect all our suppliers – at a minimum – to comply with INEOS Styrolution’s [Supplier Code of Conduct](#). Moreover, we work with partners along the supply chain to jointly enhance our sustainability performance.

### OUR SUSTAINABILITY TARGETS AS A RELIABLE PARTNER TO SUPPLIERS

We have defined global sustainability targets for seven focus areas of our business including procurement. These targets underscore our commitment to continuous improvements and higher transparency. We will include sustainability as a key component in our supplier excellence program and aim that all of our buyers will be trained on sustainability by end of 2017.

Furthermore, we target 80% of total supplier spend to be third-party assessed by 2020. We will report on these targets annually to disclose our progress.

### KEY HIGHLIGHTS 2016

**GLOBAL ROLL-OUT**  
of **ECOVADIS**  
assessment of suppliers

### SUSTAINABILITY TARGETS

**80%** of total supplier spend to be  
third-party assessed **END OF 2020**

**100%** of buyers trained on sustainability  
by **END OF 2017**

**SUSTAINABILITY** to be included  
as a key component in **SUPPLIER  
EXCELLENCE PROGRAM**

## 6.2 PUTTING OUR MISSION INTO PRACTICE: ESTABLISHING THE SUPPLIER CODE OF CONDUCT

By engaging our stakeholders on sustainability performance, we limit the risk of delivering products to the marketplace that are not in line with our values or the stated intent of our sustainability program. The cornerstone of our supply chain management is our Supplier Code of Conduct. It defines our minimum expectations and requirements in supplier standards, including labor practices and human rights, health and safety, environmental protection, ethics and fair business practices.

Since 2015, compliance with the Supplier Code of Conduct has been included in INEOS Styrolution’s general terms and conditions of purchase and expected of all external business partners. By agreeing to work for or with INEOS Styrolution, we require each supplier to commit to the document’s principles, which then also apply to the partner’s subsidiaries and affiliates, their subcontractors and other business partners along their supply chain.

We are confident that adherence to our Supplier Code of Conduct helps us control risks related to sustainability in our supply chain. In order to further highlight the importance of our Supplier Code of Conduct, we will be referencing this on every purchase order.

### 6.3 SHARING THE VISION: PROVIDING SUSTAINABILITY TRAINING TO OUR BUYERS

In order to create shared knowledge and understanding of the fundamental principles of our sustainability program, we began a global sustainability training initiative in 2016. Our target is to ensure that all buyers are trained on sustainability in all areas, including on the Supplier Code of Conduct and supplier sustainability evaluation criteria, by the end of 2017. Training of our buyers in the Americas was completed in 2016 and for the Asia-Pacific region in the first quarter of 2017. Buyers in the EMEA region will receive training along with the global procurement team in the second half of 2017. Conducting sustainability training enables us to create a common vision shared by all INEOS Styrolution colleagues in all sites and offices globally. It also gives guidance to our buyers when

“WE RECOGNIZE THAT EVERY PURCHASING DECISION WE MAKE HAS BOTH A SOCIAL AND ENVIRONMENTAL IMPACT. THEREFORE, IN ORDER TO CONDUCT OUR BUSINESS IN A RESPONSIBLE AND SUSTAINABLE MANNER, WE CHOOSE OUR SUPPLIERS CAREFULLY. WE PROVIDE SUSTAINABILITY TRAINING TO ALL OUR PROCUREMENT TEAMS. AND IN ADDITION, THROUGH OUR SUPPLIER EXCELLENCE PROGRAM, WE AIM TO ENHANCE OUR SUPPLIER MANAGEMENT PROCESSES, IN WHICH SUSTAINABILITY WILL BE A KEY CRITERIA FOR SUPPLIER SELECTION, EVALUATION AND PERFORMANCE MANAGEMENT.”

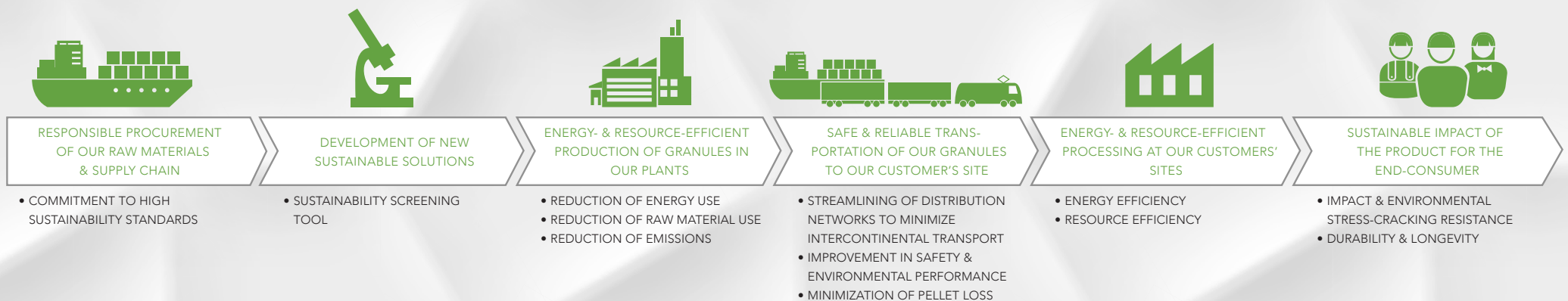


Julie Dietz –Global Head of Procurement Performance Management, ICT & Services

communicating our sustainability requirements to our suppliers. Buyers will also be given sustainability targets in

their personal target agreements. In addition, sustainability criteria to select suppliers is currently being discussed.

## DESCRIPTION OF OUR SUPPLY CHAIN<sup>1</sup>



## 6.4 ENVIRONMENTAL AND SOCIAL RESPONSIBILITY IN OUR SUPPLY CHAIN<sup>1</sup>

Our top 61 suppliers, which comprise companies with a long-standing sustainability program, account for about 80% of spend volume. In 2016, INEOS Styrolution began assessing the sustainability performance of its strategic suppliers. These suppliers were required to complete a third-party assessment documenting their performance in the area of environmental impact, safety, and fair business practices. The assessment results in a verifiable scorecard, which will be updated periodically. As part of our procurement excellence initiative, we are launching four new programs in 2017 focused around category management, process excellence, team developments and a supplier excellence initiative, which will be rolled out across the company globally.

Through the supplier excellence program, we aim to enhance our supplier management processes, in which sustainability will be included as a key component and criteria for supplier selection, evaluation and performance management. The program will incorporate all critical elements to drive sustainable supply (reliable, flexible and competitive) and sustainable performance (economic, environmental and social) of our supplier base.

We aim for 67% of our supplier spend being third-party assessed by the end of 2017 and 80% of our supplier spend assessed by 2020.

### TRANSPORT AND DISTRIBUTION

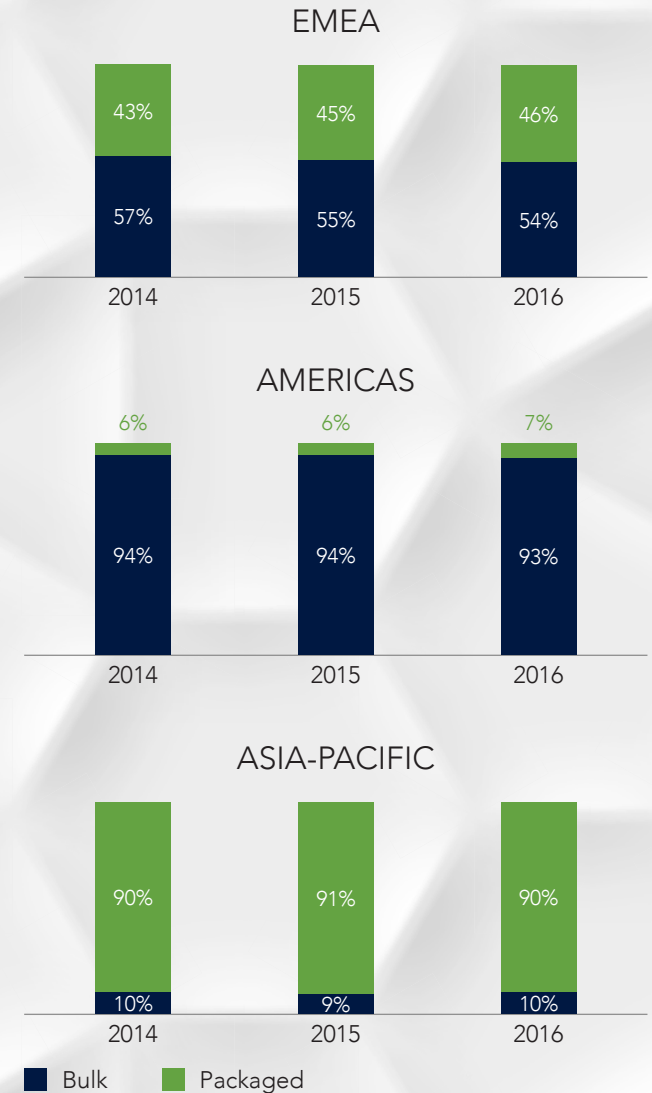
Transport and distribution is integrated into our supply chain management. INEOS Styrolution relies on an intermodal distribution model of trains, ships and trucks to find the most efficient route for the worldwide distribution of our products. Because we have production sites worldwide, we are able to serve our customers from closer locations, which helps minimize intercontinental transport.

In Europe, we transport more than 4,000 to 6,000 tons of material every day, which adds up to roughly 1 million tons a year. In the Americas in comparison, we transport more than 7,000 to 8,000 tons of material every day, which is 2.8 million tons a year. Similarly, in the Asia-Pacific region, we transport 2,000 tons of material every day, which adds up to 0.73 million tons a year. In order to lower our environmental impact, we favor the use of rail and sea transport, rather than road-based transport. We ship our products directly to our customers without the use of intermediaries. Our warehouses are located either on-site or very nearby, and are used mainly for overflow situations.

Since bulk shipments have a lower environmental impact, we encourage our customers to order in bulk when possible. In the Asia-Pacific region, some of our shipments are made without the use of pallets, thus, reducing load and making transportation more energy-efficient. In India, when our products are distributed to remote areas, we reduce the number of shipments by trucks by setting up remote distribution warehouses across the country. These warehouses stock and later distribute smaller shipments to end customers.

We select our service providers according to a set of quality standards, such as safety, environmental friendliness, as well as

## PACKAGING RATIO OF OUTGOING SHIPMENTS



<sup>1</sup> G4-LA14/-HR10/-SO9/-EN32

adherence to social, ethical standards and technical standards of the chemical industry and the INEOS Styrolution Supplier Code of Conduct. We encourage our logistics providers to always be in the highest norm (Euro 6), with tendering being undertaken every 2 years. We collaborate with environmentally friendly logistics partners, such as Bertschi, LKW Walter and XPO to set and measure our environmental and safety performance, such as miles travelled, fuel consumed, greenhouse gas emissions, loss of containment as well as transport accidents. Measuring our safety and environmental impact helps us optimize our performance and monitor improvements.

Today a joint reduction of CO<sub>2</sub> with our supply chain and customers is done on a case-by-case basis and will be further developed and refined in the coming years. In addition, we are working with our logistics partners to further optimize our supply chain in terms of energy consumption, CO<sub>2</sub> emissions, and avoidance of spills through a constant improvement process.

**Operation Clean Sweep**

We are fully committed to Operation Clean Sweep (OCS), an industry response to help combat the growing issue of marine litter by preventing plastic pellet, flake and powder loss during production and transportation. In support of the initiative, we work together with our value chain to share best practices on OCS. We are currently working to improve our processes to avoid pellet loss while loading bulk machines in our manufacturing sites.

In addition to our own signed pledge of the initiative, we are also engaging with our partners and customers downstream to sign the OCS pledge and encourage them to contribute to OCS by implementing systems to avoid pellet loss. We require our third-party contract warehouse, packaging and bulk trans-loading facilities to participate in OCS. We ensure our service providers are adhering to OCS requirements by conducting on-site facility audits.

[More information on our OCS pledge and actions can be found in chapter 4 "Responsible operations"](#)



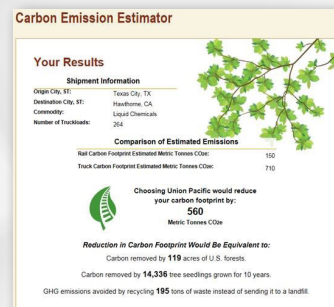
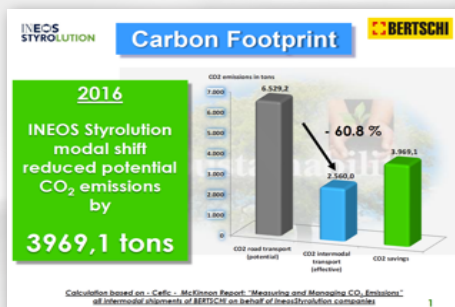
"HOW WE OPERATE OUR SUPPLY CHAIN IS A CRITICAL ELEMENT IN ACHIEVING THE OBJECTIVES OF OUR SUSTAINABIL-

ITY PROGRAM. THEREFORE, IT IS ESSENTIAL THAT WE CONDUCT BUSINESS WITH SUPPLIERS ACROSS OUR SUPPLY CHAIN THAT HAVE THE SAME SET OF QUALITY, SAFETY, ENVIRONMENTAL AND SOCIAL STANDARDS AS WE DO. WE ACHIEVE THIS BY ENSURING THAT OUR SUPPLIER BASE SUBSCRIBES TO OUR SUPPLIER CODE OF CONDUCT AND WE ARE ENGAGED WITH OUR SERVICE PROVIDERS ON CORPORATE SAFETY AND QUALITY PROGRAMS AS WELL AS INDUSTRY-DRIVEN ENVIRONMENTAL PROGRAMS SUCH AS OPERATION CLEAN SWEEP."

Greg Fordyce – Vice President Supply Chain & Procurement Americas

**CERTIFICATIONS FROM LOGISTICS PARTNERS**

ABOUT OUR REDUCTIONS IN CO<sub>2</sub> EMISSIONS IN 2016



## 7.0 COMPLIANCE AS FOUNDATION OF OUR BUSINESS SUCCESS



# COMPLIANCE – DOING THE RIGHT THING

Compliance stands for conforming to applicable rules and doing the right thing. At INEOS Styrolution, compliance is a non-negotiable foundation of how we do our business. We do not compromise on compliance and seek to ensure that our commitment to lawful, responsible and ethical conduct is practiced every day, everywhere.

## 7.1 OUR MISSION: LIVING UP TO HIGHEST STANDARDS WITH REGARDS TO COMPLIANCE

As manifested in our own values and guiding principles, we are committed to complying with all relevant local, national and international laws. Our globally defined policies and standards to some extent even exceed the requirements of local laws. We strive to live up to the highest standards of business practice regarding ethics, integrity and transparency and will not compromise our safety, health or environmental standards for any reason, including profit or production.

### OUR SUSTAINABILITY TARGETS FOR COMPLIANCE

We have defined global sustainability targets for seven focus areas of our business including compliance. These targets underscore our commitment to continuous improvements and higher transparency. We aim to provide biennial training on our Code of Conduct to our entire active employee base as well as train our relevant employee workforce on anti-bribery and corruption.

### KEY HIGHLIGHTS 2016



### SUSTAINABILITY TARGETS



## 7.2 PUTTING OUR MISSION INTO PRACTICE:

### INEOS STYROLUTION'S COMPLIANCE PROGRAM<sup>1</sup>

INEOS Styrolution operates as a responsible corporate citizen at all times, regardless of business unit or location. We believe that the way we conduct business is as important as what we produce. In addition to compliance with local, national and international laws and regulations, we operate with a global set of values, policies and guidelines. In some cases, the company's global standards exceed the requirements of local laws and regulations.

INEOS Styrolution and its senior management regularly articulate the company's policies on business integrity. We continue to refine our policies, increase awareness and understanding of these among employees and business partners, and enforce compliance in accordance with the policies' intent.

The cornerstone of our global Compliance Program is our Code of Conduct, which was revised in 2016. It defines and summarizes, in one framework, what we expect of our businesses and employees regardless of location or background. The Code of Conduct provides guidance in key areas and where needed, indicates where more detailed standards, policies, instructions and processes are available or will be issued. To ensure that all employees fully understand our policies, the INEOS Styrolution Code of Conduct is made

available – also translated into selected relevant languages – on a dedicated section in the INEOS Styrolution intranet, which is accessible to all employees.

To ensure that employees act in accordance with the Code of Conduct and other relevant policies, updates are published quarterly and emailed to employees. Such correspondence is provided by our CEO. In addition, an internal newsletter on compliance is regularly issued, which highlights the policies, explains any new updates, and provides concrete examples of compliant and non-compliant behavior.

The INEOS Styrolution Compliance Program also includes periodic trainings. After the first training on the Code of Conduct was completed in 2013 and 2014, another round of Code of Conduct training to our employees commenced in the Asia-Pacific region in 2016, and will be continued in the Americas and EMEA in 2017. The INEOS Styrolution management board decided on a biennial training cycle on the Code of Conduct to INEOS Styrolution staff. While geographic transfers, temporary leaves, recent hires, and job changes within INEOS Styrolution prevented achieving 100% participation in this training, the expectation of the company continues to be that all active

employees complete the training and be held accountable for the content of the Code of Conduct. Training on Code of Conduct is part of the onboarding program for all new joiners.

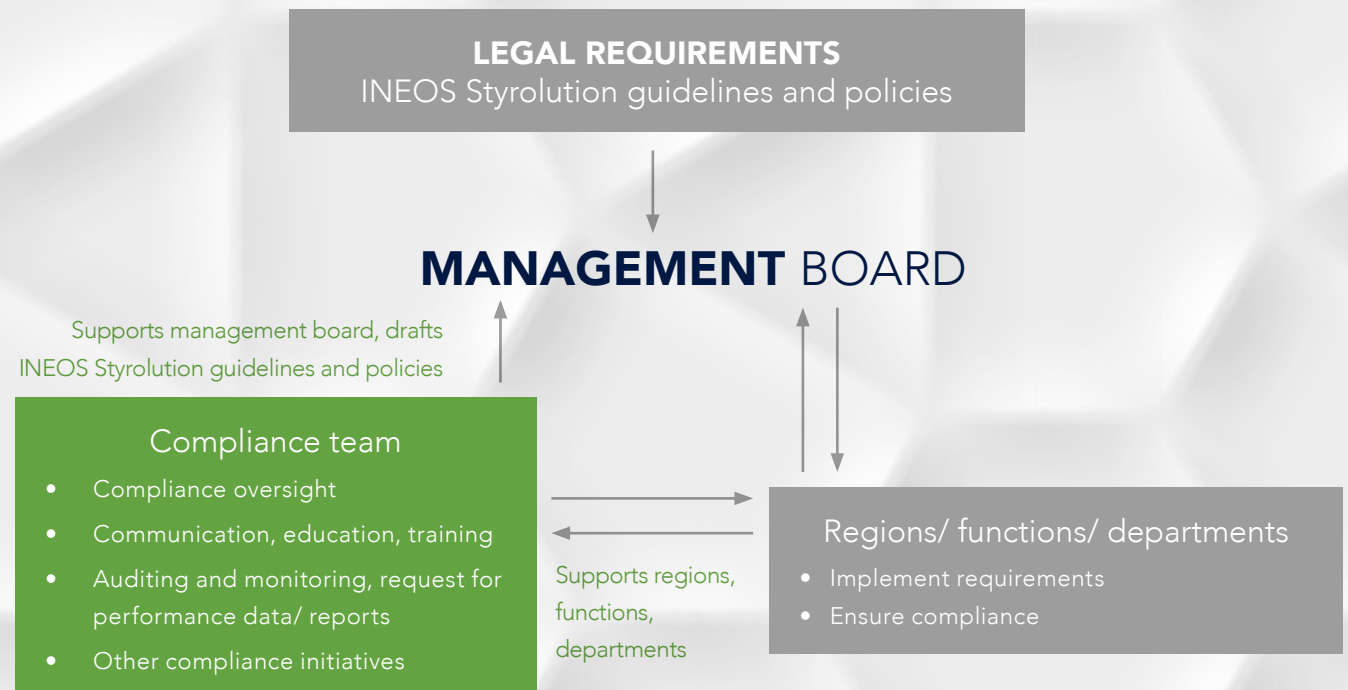
Our Compliance Program ensures that INEOS Styrolution operates as a responsible corporate citizen, by providing an organizational framework on global, regional and country levels. The Compliance Program is strongly supported by the Risk & Control Program established within INEOS Styrolution, which combines risk assessments (in various subjects including compliance), definition of mitigation measures for

## THE GUIDING PRINCIPLES OF OUR COMPANY

Everything we do and every choice we make is guided by our values.



## COMPLIANCE TEAM ROLES AND RESPONSIBILITIES



identified risks, and regularly tests the effectiveness of design as well as the operational performance of such measures.

### CHILD LABOR<sup>1</sup>

According to international conventions, child labor is a crime. Conventions, such as the United Nations Convention on the Rights of the Child as well as International Labour Organisation (ILO) conventions, prohibit and aim to eliminate child labor. Although the chemical and plastics industry is not usually prone to this criminal abuse, INEOS Styrolution is vigilant to prevent it and has set clear criteria in both the 2016 revision to its Code of Conduct as well as its Supplier Code of Conduct of 2015.

According to the company's Code of Conduct and Supplier Code of Conduct, only persons who are at least 15 years of age or the applicable minimum legal age, whichever is higher, may be engaged as employees. Legitimate workplace apprenticeship programs for educational benefit may be provided that are consistent with Article 6 or 7 of ILO's Minimum Age Convention No. 138.

### FORCED OR COMPULSORY LABOR<sup>2</sup>

All work performed for INEOS Styrolution has to be voluntary. There is zero tolerance for trafficking of persons or the use of any form of forced, bonded, slave or prison labor. No employee or contractor can be required to surrender any government-issued identification, passports, work permits or travel documents as a condition of employment. Contracts and human resources policies clearly mention the conditions of employment in explicit language understood by the employee. Employees shall be free to terminate their employment upon reasonable notice. There must not be imposed unreasonable restrictions on movement within the workplace or upon

## GLOBAL AND REGIONAL COMPLIANCE TEAMS

INEOS Styrolution maintains four Compliance teams: One team for each of our three regions and one global team.

Each of these four teams is made up of a representative from Legal (chair), the Business, Human Resources (HR), Safety, Health & Environment (SHE) and Finance.

Members of other departments and functions participate occasionally as members of the extended team. These can include Technology and Operations, Strategy and Procurement, Sales, Communications, and Tax.



entering or exiting company-provided facilities.

### OPERATIONS SUBJECT TO HUMAN RIGHTS ASSESSMENT<sup>3</sup>

All operations are assessed with a view to comply with the company's human rights policies, which are mirrored in INEOS Styrolution's human resources policies.

### ANTI-BRIBERY, CORRUPTION AND MONEY LAUNDERING<sup>4</sup>

The INEOS Styrolution [Risk & Control Program](#) performed an initial assessment of all operations in 2014 and identified a low risk related to corruption. In the assessment performed in 2016, the low risk evaluation was confirmed. The topic of corruption and anti-bribery is already included in the Code of Conduct and consequently brought to the awareness of INEOS Styrolution employees. In addition to this, the company has decided to issue an anti-bribery and corruption policy (also covering the main areas and expectations of money laundering regulations) in 2017. This policy will, amongst others, identify high-risk countries (in line with

the corruption perception index issued by Transparency International) and introduce certain requirements when identifying and selecting agents and other representatives of INEOS Styrolution.

### ANTI-COMPETITIVE BEHAVIOR<sup>5</sup>

All our employees are prohibited from entering into any discussions, formal or informal agreements or understandings with competitors that may restrict competition. Vigorous competition, free from collusion and unreasonable restraint, is the most effective mechanism to ensure that INEOS Styrolution provides high-quality and well-priced products and services. Failure to comply with competition, antitrust and other trade regulation laws in any jurisdiction in which we conduct business could result in serious consequences, for both INEOS Styrolution and the offending individuals, including significant civil and criminal penalties.

Each employee is responsible for familiarizing themselves and complying with the competition laws relevant to their role and their business. For employees whose job function puts them at risk

of non-compliance, further guidance is provided through regularly repeated, compulsory training on policies related to compliance with antitrust and competition law. This training was completed for these employees in Europe in 2014. In 2016, a comprehensive online training on antitrust was provided to relevant employees globally. These employees include senior management, account managers and sales managers. In addition, a policy related to interaction with competitors was issued in 2016, defining certain reporting and filing requirements, and was followed by a training session for those with elevated exposure to potential contacts with competitors, for example at trade shows.

### INTERNATIONAL TRADE

In 2016, INEOS Styrolution issued an international trade policy also covering certain areas of anti-corruption regulations. The policy outlines the areas in which national and international laws and regulations can impact INEOS Styrolution business. The policy also introduces certain requirements on due diligence for interacting with third parties, such as customers, suppliers or agents, particularly if located in or transacting into and out of certain listed countries. Selection of countries is based on issued and active trade restrictions, on the corruption perception index, issued by Transparency International, as well as an IT screening tool that is rolled out globally to support such due diligence processes electronically.

Should there be any doubt about the propriety of any transaction or course of conduct, the Code of Conduct instructs employees to contact the Legal department immediately for direction. To the best of our knowledge, in 2016, no INEOS Styrolution operations were subject to allegations of human rights abuse, child or forced labor, corruption, or incidents in anti-competitive behavior. We can also confirm that to the best of our knowledge we did not incur any valid cases of employee discrimination in 2016.<sup>1</sup>

### MANAGING COMPLIANCE VIOLATIONS, INCLUDING GRIEVANCES

Every employee is encouraged to report any confirmed or suspected violation of our Code of Conduct immediately to their manager, or to a member of our global or regional Compliance team.

If the employee does not wish to engage their manager, or any of the global or regional Compliance teams, INEOS Styrolution has contracted an external provider to operate a standardized compliance hotline. This global grievance mechanism is available for all sites, and the call can be placed anonymously if the caller prefers. It is available at all times (24 hours a day, 365 days a year) and is free of charge to the caller.

Each call received on the compliance hotline is categorized and tracked according to a variety of criteria, including:

- Labor practices, for example, health and safety, malpractice, allegations of ageism, animal welfare, assault, bullying/victimization, breaches of confidentiality, discrimination based on race, religion, gender, or any other cause, grievances with manager, gross misconduct, pay issues or privacy issues
- Business practices, for example, anti-competition, breach of company policy, bribery, conflict of interest, corruption, facilitation payments, fraud, giving or receiving of gifts, harassment, sexual harassment, intimidation, money laundering, issues related to partners and third parties, political activity, quality issues, racism, security issues, substance abuse, unfair dismissal, unprofessional behavior, vandalism/ criminal damage or verbal abuse
- Human rights issues

In 2016, the compliance hotline received four calls, out of which two complaints were related to labor practices; none of the calls were related to impacts on society or human rights. . All four were fully investigated and resolved in 2016.<sup>2</sup>



“WE BELIEVE ADHERENCE TO THE HIGHEST STANDARDS OF ETHICS AND INTEGRITY IN OUR BUSINESS PRACTICES AS WELL AS CONFORMITY WITH ALL APPLICABLE LAWS IS VITAL NOT MERELY FOR COMPLIANCE, BUT AS AN IMPERATIVE FOR SUSTAINABLE AND PROFITABLE GROWTH OF OUR BUSINESS. IT BUILDS CREDIBILITY FOR OUR COMPANY AMONG ALL STAKEHOLDERS – INVESTORS, CUSTOMERS, EMPLOYEES, SUPPLIERS, PARTNERS AS WELL AS THE COMMUNITIES WE OPERATE IN.”

Haresh Khilnani – Company Secretary and Head of Legal & Compliance

# 8.0 COMMUNITY INVOLVEMENT



# TAKING RESPONSIBILITY FOR THE NEIGHBORHOOD

Our responsibility does not end at our company gates. On the contrary, we want to be an active and supportive member of the communities we operate in.



## 8.1 OUR MISSION: SUPPORTING THE COMMUNITIES WE OPERATE IN

We strive to be an active and supportive member of the communities we operate in and have a particular responsibility towards our production sites' and headquarters' neighbors. We not only want to improve the quality of life around our company's various locations, but we are also committed to developing long-term and positive relationships with our neighbors.

We also believe that community engagement is best led locally. This way we can steer best our activities towards where the most pressing needs are.

### KEY HIGHLIGHTS 2016

14 OUT OF 15  
**PRODUCTION SITES &  
 3 OUT OF 4  
 HEADQUARTERS**

support their communities with

LOCAL CORPORATE SOCIAL  
 RESPONSIBILITY (CSR) PROJECTS  
 and/ or DONATIONS

We place a strong focus on future generations and focus our efforts and money towards initiatives that support the health and well-being of young and disadvantaged children. Therefore, we support local charities, sports and education programs, other child-related initiatives as well as other areas determined by local community needs.

### OUR SUSTAINABILITY TARGETS

We now have defined global sustainability targets for all seven focus areas of our business and therefore also for community involvement activities. These targets underscore our commitment to continuous improvements and higher transparency. As of 2017, all INEOS Styrolution sites, offices and headquarters have been asked to commit to at least one meaningful corporate social responsibility (CSR) project per year. In order to realize this, each location has been given a specific incremental budget. We will report on them annually to disclose our progress.

### SUSTAINABILITY TARGETS

**ALL SITES, OFFICES &  
 HEADQUARTERS**

support at least one meaningful

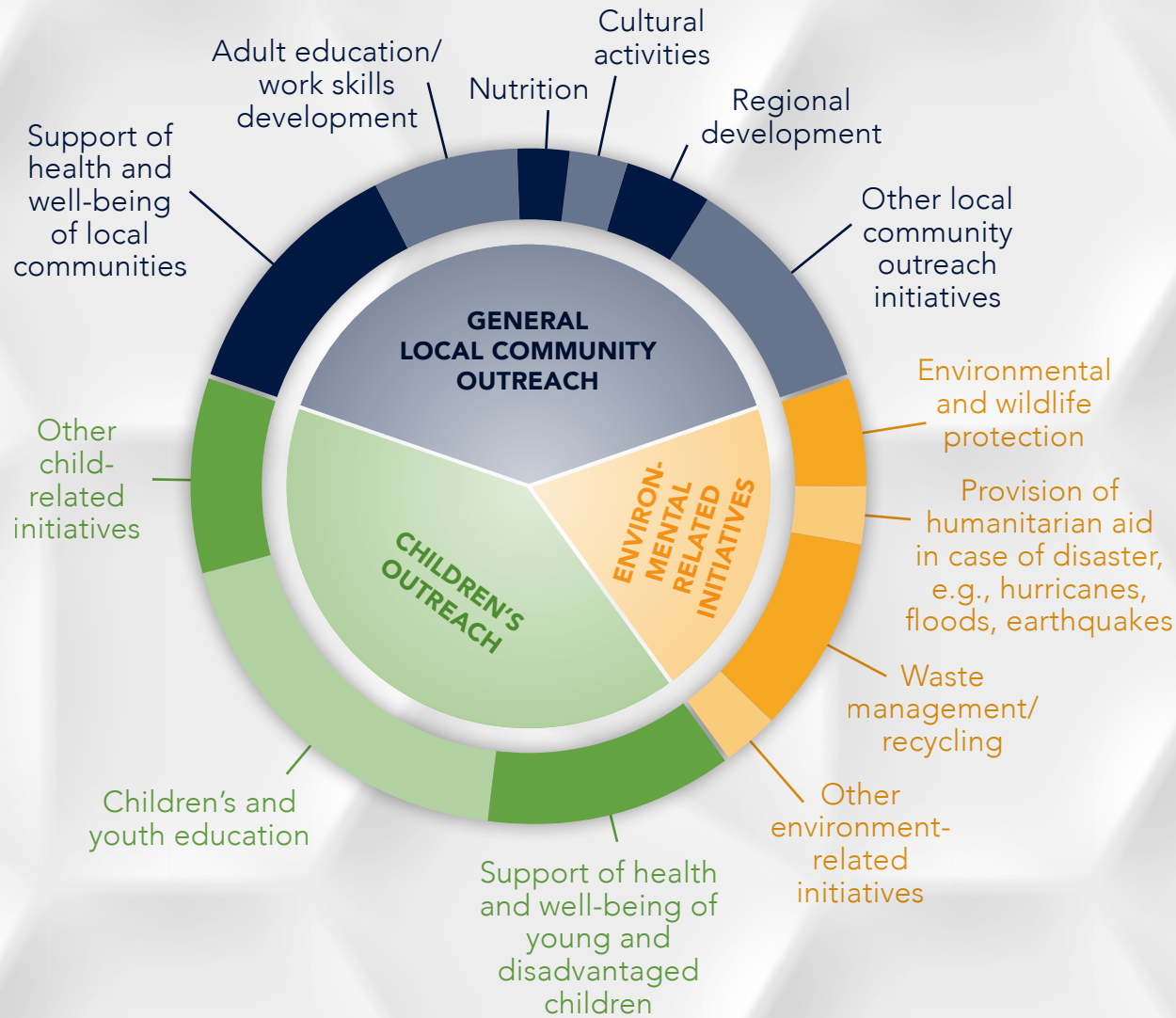
CORPORATE SOCIAL  
 RESPONSIBILITY (CSR) PROJECT



"WITH OUR COMMUNITY INVOLVEMENT PROGRAM, WE WANT TO IMPROVE THE QUALITY OF LIFE AT THE COMPANY'S VARIOUS LOCATIONS. IT IS IMPORTANT TO US TO UNDERSTAND WHAT PEOPLE IN THOSE COMMUNITIES REALLY NEED. TO THIS END, WE DONATE OUR EFFORTS AND MONEY TO DRIVE INITIATIVES THAT FOR EXAMPLE SUPPORT THE HEALTH, WELL-BEING AND EDUCATION OF YOUNG AND DISADVANTAGED CHILDREN."

Katja Schönberger – Assistant to Christine Schönfelder,  
 Vice President Corporate Communications, Investor  
 Relations, Advocacy and Change Management

## COMMUNITY INVOLVEMENT: FOCUS AREAS 2016



## 8.2 PUTTING OUR MISSION INTO PRACTICE: COMMUNITY INVOLVEMENT PROJECTS FROM AROUND THE GLOBE<sup>1</sup>

### READY, SET, GO RUN FOR FUN: INEOS AND INEOS STYROLUTION STAGE RUNNING EVENTS FOR KIDS

We aim to motivate young kids to get involved in sports and enjoy a healthy, active lifestyle on into adulthood. This is why we support our parent company INEOS with their global GO Run For Fun (GRFF) campaign. With already more than 206,600 children participating since its inception in 2013, the GRFF is the world's largest running series for children, encouraging young people's participation in sports. In Germany, GRFF is organized under the patronage of Hermann Gröhe, Federal Minister of Health.



A team of 36 volunteers from INEOS Melamines, INEOS Paraform and INEOS Styrolution volunteered as track marshals or helpers at the events in Frankfurt am Main.



GRFF ambassador and Paralympian Felix Streng and mascot Dart join the kids at the starting line in Frankfurt am Main.



Dathan Ritzenhein, Olympic marathon runner, was the special ambassador for the GRFF Chicago area runs.

In response to the very positive resonance, we expanded our GRFF series in 2016 and staged running events with 2,800 enthusiastic elementary school students aged between 5 and 11 in Frankfurt am Main, Germany, close to our INEOS Styrolution global headquarters, and in the Chicago area, near our Americas headquarters, with volunteer support from several production sites in Germany and the Americas. In Texas, USA, where we operate two big styrene monomer sites, we teamed up with INEOS Olefins and Polymers and supported ten local GRFF events where nearly 10,000 elementary school kids participated in 2016.

## INSPIRING KIDS IN SCIENCE AT PRIMARY SCHOOL AGE

With our future generations in mind, we are committed to promoting educational projects. As the leading global styrenics supplier, we want to inspire interest in polymer science among young students at an early stage. Through a series of child-oriented scientific experiments, we introduce primary school kids playfully to the world of chemistry and plastics, to explore the wide variety of properties and applications plastics have. In cooperation with PlasticsEurope Germany e.V. and the teacher training center Ifbz Chemie University Frankfurt, we provide free teacher trainings as well as "Kunos coole Kunststoff-Kiste", an experimental kit for child-oriented scientific experiments, to all interested primary schools in Germany, Poland, Italy and the UK. Beyond our efforts for primary schools, we support doctorates at universities with scholarships, for example in the field of R&D.



With Kuno's child-oriented scientific experiments, our volunteers help educate younger generations about the important role plastics play in our everyday life.

## LINKING OUR APPROACH TO COMPLIANCE WITH A GOOD DEED

Back in 2015, INEOS Styrolution EMEA decided to refrain from sending gifts to business partners for the year's end and since then has been supporting charitable institutions instead. 2016's Christmas donation of €7,500 goes to Hannibal, a charity of the JKVG Association in Antwerp, Belgium, that brings together kids and young people of the same age with and without disabilities to spend a wonderful holiday together. To facilitate this, the organization relies on a great number of volunteers. At Hannibal, more than 250 volunteers and four regular members of staff dedicated themselves to children and young people with disabilities and ensured that those kids have an unforgettable time.



Hannibal – a different type of charity that brings together kids and young people with and without disabilities to spend a holiday together.



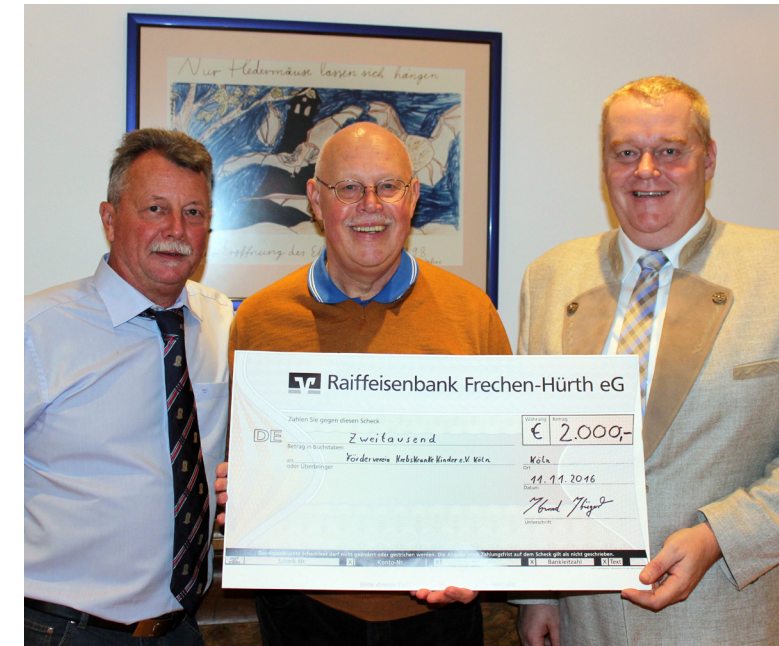
Alexander Glück (3<sup>rd</sup> from the left), President Americas, and his team presenting the symbolic check with a donation of €4,576 for the charity organization.

## INEOS STYROLUTION AURORA PROVIDES A LIFE-CHANGING GIFT TO LOCAL FAMILIES

In 2016, the INEOS Styrolution headquarters in Aurora, USA, conducted a Christmas raffle to raise funds for the Bridge Communities – a local charity that offers transitional housing and support services to homeless families in DuPage County. INEOS Styrolution matched the €2,288 raised at the raffle and donated €4,576 to the Bridge Communities. The mission of this organization is to transition homeless families to self-sufficiency by working with partners to provide mentoring, housing, and supportive services. With the support of local businesses and non-profit organizations, homeless families that live and work in DuPage County are provided with warm and safe housing, with educational and job opportunities as well as mentoring support to help manage their finances and save for their future. In addition, Aurora's Human Resource department will continue the partnership by building a relationship with the employment director at the local charity to determine job opportunities INEOS Styrolution might provide as a local employer.

## INEOS STYROLUTION COLOGNE TAKES INITIATIVE FOR FAMILIES WITH CHILDREN SUFFERING FROM CANCER

Since 2014, the INEOS Styrolution team in Cologne, Germany, uses their Family Day to collect donations for the team's charity of choice, the Children's Cancer Association Cologne. It is an organization that supports parents whose children are being treated for cancer, providing psychological assistance and onsite family apartments for the affected families. INEOS Styrolution colleagues from the overnight shift provide an additional personal contribution every year and raised another €600 on top of the significant sum of €2,000 in 2016.



The symbolic check handover of €2,000 to the Children's Cancer Association Cologne.

### PROVIDING A CAREER TO SCHOOL STUDENTS FROM SURROUNDING COMMUNITIES

INEOS Styrolution Channahon and Aurora, USA, proudly participated in the 2016's U.S. Manufacturing Day, a nationally recognized event that has been designed to increase knowledge about manufacturing as well as improve general public perception of this sector's contribution to U.S., Canadian and Mexican economies. Young students not only get the opportunity to meet with local companies, but are also able to explore career opportunities in science, technology, mathematics and engineering.



INEOS Styrolution volunteers spend a day with local students to give insights into career opportunities within the company.

### INEOS STYROLUTION BAYPORT AND TEXAS CITY SWING THE GOLF CLUB FOR CHARITY

It may have a terrifying name, but it is for a good cause: INEOS Styrolution's annual White Ball Massacre, an annual charity golfing tournament staged by INEOS Styrolution Bayport and Texas City, USA, in conjunction with contractors, vendors and



The boys and girls from LaPorte are thankful for the fundraising and donation.

suppliers of the Gulf Coast sites. All proceeds are being donated to the education-focused, local children's organization Boys & Girls Harbor of LaPorte, Texas, which serves as a refuge for young children and teenagers aged 5 to 18 who find themselves in crisis due to neglect, abandonment, abuse or family hardship. The Harbor welcomes children in need regardless of race, creed, color or financial status, offering them a safe, loving, family environment. The success of the tournament depends on the generosity of the participants: In 2016, the White Ball Massacre netted €69,435, and since 2004, INEOS Styrolution raised donations of more than €366,500 to support the Harbor.

### MAKING A VISIBLE AND SUBSTANTIAL IMPACT IN THEIR COMMUNITY

The list of environmental and CSR projects undertaken by our INEOS Styrolution production site in Sarnia, Canada, is long. As part of the United Way campaign, a community-wide effort



The INEOS Styrolution Sarnia team volunteered to complete meaningful, hands-on projects to support their local community.

to improve the lives of children and families in need, INEOS Styrolution Sarnia mobilized a team of volunteers to support the United Way Day of Caring, which sees employees leave their workplace for a day to support a hands-on project and



Helal Elkolaly, Operations Engineer, and Erin Dasilva, Associate Project Controls, painting the corridor of the Huron House.

help local individuals and community organizations. In 2016, INEOS Styrolution employees carried out repair work and painting jobs at the local Huron House Boys' Home, a safe, structured residential environment for adolescent boys between the age of 12 and 18 with complex needs and mental health issues. At the Day of Caring, our volunteers painted and refurbished the Huron House's corridors, washrooms and two family apartments. The next Day of Caring is already on the team's schedule.

### HEART&STROKE BIG BIKE – WORKING TOWARDS HEALTHY LIVES FREE OF HEART DISEASE AND STROKE

The Heart&Stroke Big Bike is a heart-pumping team event geared towards companies, community organizations and other groups. For 20 minutes, our Sarnia team made up of

29 riders powered one big bike pedaling through the Sarnia

Pedaling for a good cause to save lives and support heart disease and stroke survivors.



community, Canada. Each of the 29 enthusiastic riders had to find sponsors prior to the event, which is committed to support critical heart disease and stroke research in hospitals and universities across Canada. This heart-healthy exercise raised €1,254 for the Heart & Stroke Foundation to fund research that is saving lives and supporting heart disease and stroke survivors and their families.

### INEOS STYROLUTION RUNS CHRISTMAS GIFT-GIVING PROGRAM FOR KIDS IN ALTAMIRA

To help the local kids from the José Mario Castro elementary school enjoy the Christmas holiday season, INEOS Styrolution colleagues from Altamira, Mexico, organized a corporate gift-giving program as well as a Christmas party for the young students in December last year. INEOS Styrolution employees and their families provided 419 deserving children with Christmas gifts as well as food and beverages to make a positive impact in their community during the holiday season.



Making wishes come true for disadvantaged local kids and their families.

## INEOS STYROLUTION INDIA CONTRIBUTES TO COMBATTING RURAL POVERTY BY SUPPORTING LOCAL SCHOOLS

According to our vision of supporting sustainable social and environmental development, INEOS Styrolution India issued a corporate social responsibility (CSR) policy donating 2% of its average net profits to charity annually. These funds go to carefully selected organizations that dedicate themselves to this common goal. In close cooperation with the Mahavir International Foundation Trust, an NGO working for social welfare and children education in India, INEOS Styrolution India supported several child-related CSR initiatives in Katol, Nandesari, Moxi and Dahej in 2016. It, for example, funded €199,500 for the reconstruction of 16 local schools, provided financial support and manpower to undertake roof repair and general renovation works in restrooms and classrooms, distributed learning and writing materials to various local schools as well as provided scholarships to local students.



INEOS Styrolution India provided portable desks as well as learning and writing materials to local school kids.



Cleaning for a good cause: INEOS Styrolution employees in Thailand help with the annual coastal cleanup.

## FIGHTING FOR TRASH-FREE SEAS – INEOS STYROLUTION THAILAND CLEANS UP MARINE LITTER

In an effort to help protect the local marine wildlife and habitat, 133 INEOS Styrolution volunteers and their families together with around 3,000 volunteers from 26 local companies participated in the Ocean Conservancy's annual International Coastal Cleanup, the world's largest volunteer effort to clean up the ocean, waterways and coastlines from plastic. At the 2016 cleanup, 104,299 pieces of marine trash, which adds up to 9,121 kilograms, was collected from Rayong's Mae Ramphueng Beach, Banchang's Nam Rin Beach and Pa Yoon Beach, Thailand. In addition, INEOS Styrolution, which supports this global initiative for over ten years now, provided €1,850 to support ocean conservation and help protect its wildlife for future generations.

## HARVESTING FOR THE SENIOR CENTER IN KOREA

Respecting and taking care of older people is one of the most important values in Korean culture. That is why the INEOS Styrolution site in Ulsan has been supporting the Sanggae-Dong Senior Center as part of the "One Company, One Village" initiative for over 11 years. The center is located right next to the Ulsan Petrochemical Complex and offers senior citizens a place to socialize. In November 2016, INEOS Styrolution employees joined local residents to harvest hundreds of cabbages and radishes to donate food to the senior center.



INEOS Styrolution volunteers harvested seasonal food for the Sanggae-Dong Senior Center.

At all INEOS Styrolution production sites, each Operations Director has to sign an annual letter of safety, health and environment assurance, to confirm that their business has undertaken all necessary activities related to safety, health and environmental matters in accordance with the business and INEOS Group's SHE Policy.<sup>1</sup>

# MAKING SUSTAINABLE GROWTH A REALITY

We are taking an integrated approach to deliver a strong sustainability performance that benefits our customers and society. We are convinced that truly sustainable business management is a prerequisite for accomplishing growth and long-term success – for our customers and ourselves.



## 9.1 OUR MISSION: DRIVING GENUINE VALUE THROUGH SUSTAINABLE BUSINESS MANAGEMENT

INEOS Styrolution looks at sustainability as a genuine driver of growth and value, which is firmly embedded in our Triple Shift growth strategy. We are determined to support the market success of our customers by leveraging sustainable business management as a competitive edge. In order to do so, we carefully listen to our customers' needs, continuously engage in collaborative innovation and position sustainability as an integral part of our business management activities. We are constantly optimizing our economic, environmental and social performance to deliver safe, best-quality and high-performance products that eventually render our customers' businesses as well as end consumers' choices more sustainable.

## 9.2 PUTTING OUR MISSION INTO PRACTICE: FOSTERING SUSTAINABLE GROWTH

By focusing on value creation for our customers, we are committed to driving profitable growth of our company. Since our foundation in 2011, we have significantly strengthened our competitiveness in many business areas and have continuously delivered a strong business performance. We believe that sustainable management and operations is the basis of our business success.

Today, we are the leading global styrenics supplier with access to customers in growth industries, such as automotive, electronics and healthcare. We are well-positioned in the higher-value ABS Standard and specialties markets and have a strong asset footprint globally. We can rely on our broad product portfolio, considerable intellectual property and our world-scale commodity manufacturing platform with best-cost technology. We are leveraging these strengths to the benefit of our customers.

### TRIPLE SHIFT STRATEGY FOR RESILIENCE AND SUSTAINABLE GROWTH

In order to drive sustainable growth, in 2013, we set ourselves ambitious objectives: We wanted INEOS Styrolution to prosper as a resilient, less cyclical, more diversified and more profitable business. This translated into the earnings target to grow our EBITDA margin beyond 10% by 2020. In 2016, we over-delivered on this EBITDA margin target, which reaffirmed that Triple Shift is the right strategy for the company. New market developments, however, made it necessary for us to adapt this strategy and give it a refresh. Therefore, we reviewed our strategic assumptions of 2013 and refined our growth strategy and business plan up to 2025.

Our Triple Shift strategy involves a shift in focus in the following three areas:

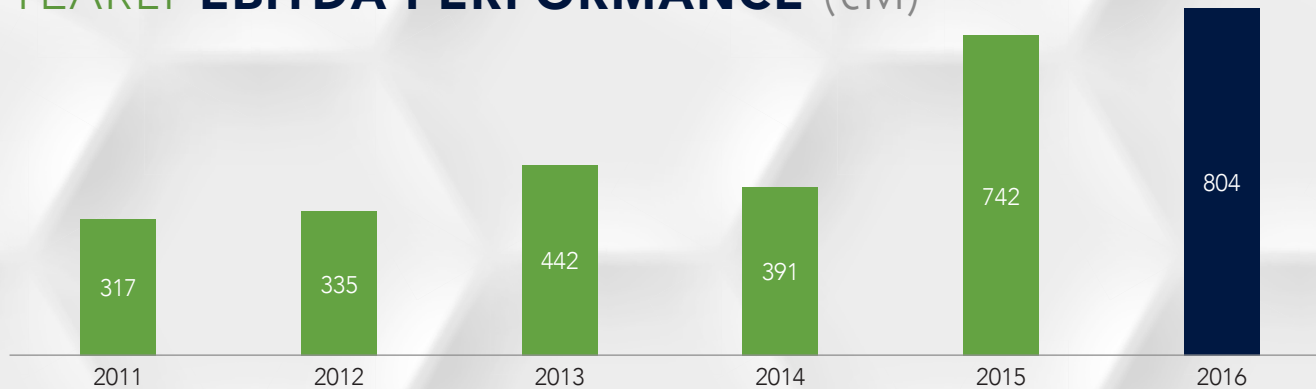
#### A shift towards higher-growth customer industries

To increase our own potential for sustainable growth, we place a stronger focus on five higher-growth industries, namely automotive, electronics, healthcare, construction and household. Growth in these industries is supported by global megatrends, such as resource efficiency, need for mobility and demographic change.

#### A shift in our portfolio towards higher value offerings

In order to meet the demands of these industries, the second shift refers to a stronger focus on higher-value specialties and

### YEARLY EBITDA PERFORMANCE (€M)



ABS Standard grades. This shift is driven by customization and differentiation. It is reflected in our broad portfolio of more than 1,500 high-performance and value-added products, our large number of customized solutions, comprehensive service packages and our close relationships with key customers and external partners. Our specialties business is continuously growing and is the largest and most stable contributor to our EBITDA.

### A shift towards high-growth regions

This shift includes strategically investing in growth markets by expanding our assets and sales footprint, particularly in Asia-Pacific and the Americas. In EMEA and North America, we will continue to pursue growth in higher-growth industries with our standard ABS and specialties products. We continuously strengthen further our global production and supply footprint. This enables local sourcing for our customers, provides them with greater supply security and has a beneficial impact on our environmental footprint.

### STRATEGIC IMPLEMENTATION OF OUR GROWTH STRATEGY

In 2016, we announced and substantially advanced a number of strategic projects. Based on the growing demand for ABS and styrenic specialties solutions in the Americas, in 2016, we announced plans to expand our Altamira ABS and styrenic specialties ASA plant in Mexico. This investment will also allow customers to benefit from increased flexibility as we adapt production to their demand.

The capacity expansion of 20,000 metric tons will grow our overall copolymer production capacity in Altamira to 180,000 metric tons. This increase will be the result of a debottleneck-

ing of the Altamira copolymer plant, and will also lead to a reduction of imports from other regions that were needed to support growth in the Americas. These import volumes will then be freed up for business growth in other regions. The reduced cross-regional transportation also has a beneficial impact on our environmental footprint. Startup is expected by the first quarter of 2018.

In October 2016, we agreed to acquire the styrene-butadiene copolymers (SBC) business with the well-known premium brand K-Resin® from Chevron Phillips Chemical Company LLC and Daelim Industrial Co. Ltd. This acquisition, which was closed end of February, 2017, underlines our commitment to the Triple Shift growth strategy with a strong dedication to our styrenic specialties business, a well-balanced split across all focus industries and improved global presence. It strengthens our ability to offer specialty styrenics products to our customers and increased our production capacities in Asia-Pacific. We now have a truly global manufacturing platform with SBC specialty production sites not only in EMEA and in the Americas, but also in Asia-Pacific. Supply from our new site in Yeosu, Korea, allows us to serve our Asian customers more efficiently with an improved environmental footprint due to shorter transportation distances. We are also able to offer the broadest SBC portfolio and related expertise in the industry. Hence, we can provide even better solutions, as well as improved security of supply to our customers worldwide. Since the closing of the K-Resin acquisition, we have been holding several know-how transfer meetings with involvement of representatives from regional development centers, global technology and regional business teams with the aim to improve our market offerings. We continuously look for further profitable growth opportunities.

“WE BELIEVE THAT SUSTAINABILITY IS KEY TO OUR BUSINESS SUCCESS. ONLY WHEN RESPONSIBLE BUSINESS MANAGEMENT GOES HAND IN HAND WITH SUSTAINABLE OPERATIONS AND SOCIAL RESPONSIBILITY, WILL WE ACHIEVE LONG-TERM PROFITABLE GROWTH FOR US AND OUR STAKEHOLDERS. THEREFORE, OUR TRIPLE SHIFT STRATEGY AIMS TO BETTER RESPOND TO THE DEMANDS OF OUR CUSTOMERS FROM OUR FOCUS INDUSTRIES WITH SUSTAINABLE PRODUCT OFFERINGS ON A GLOBAL SCALE.”



Christine Schönfelder – Vice President Corporate Communications, Investor Relations, Advocacy and Change Management

Following the completion of the integration of INEOS Styrolution's and INEOS ABS's marketing approach in the Americas, we now successfully act as the one face to the market and the single source to serve customers with a combined product and service portfolio under the INEOS Styrolution brand. The integration of the go-to-market approach has not only significantly enriched our standard and specialty ABS offering, but also established INEOS Styrolution as the clear market leader in ABS in the Americas. Customers can now benefit from the broadest portfolio of solutions for exterior as well as interior ABS applications. In 2016, we also completed an SAP upgrade of the INEOS ABS site by connecting the same to the global INEOS Styrolution ERP system in order to increase transparency and efficiency of related business processes.

Following the debottlenecking of our ABS plant in Antwerp, Belgium, for higher production capacity, we now also have the new capability to produce white ABS in addition to natural and black grades. This portfolio enlargement of ABS products taps a market in Household we have not supplied before and enables us to better meet increasing customer demand. At K 2016, the world's premier plastics trade show, we launched our new Terluran® White grade, which provides our customers with unmatched color consistency in white ABS Standard products.

K 2016 also marked the global launch of our latest product innovation StyLight®. This novel thermoplastic composite addresses the trend of lightweight applications and offers customers a unique combination of aesthetics and excellent mechanical properties at an affordable price without an equivalent product on the market to date.

StyLight grades are brought to our customers as semi-finished goods, for instance thermoplastic sheets. With this innovative product, we not only grow our specialties offering, but also have entered a new market further down the value chain.

More information about the sustainable benefits of StyLight can be found in chapter 4 "Shaping the future: Sustainable styrenics solutions".

We also significantly advanced our investment in the Map Ta Phut site in Thailand by improving and upgrading our specialty facility. This enables us to even better serve the growing Asian-Pacific specialties market.

In 2016, we invested in process automation at our rubber plant in India. Thereby, we not only significantly improved

the condition of our production assets, but also increased the reliability and consistency of our rubber quality.

At our Regional Development Centre (RDC) in Ulsan, Korea, we installed a new color laboratory as well as an air pollution control facility. These investments in our Ulsan RDC color center further enhance our color expertise, especially for our specialties product line Luran S. They improve our productivity and also enable shorter delivery times for our customers.

We are confident that the continuous execution on our Triple Shift strategy will ultimately translate into greater value for our customers in terms of the products and services we provide with even greater security of supply, while at the same time further strengthening our position as the global market leader in styrenics.



## 9.3 INEOS STYROLUTION'S RISK & CONTROL PROGRAM: AN INGRAINED PART OF OUR CORPORATE PROCESSES

INEOS Styrolution is exposed to various risks that could impact the achievement of its corporate objectives. In order to identify, assess, monitor, and mitigate these risks, a company-wide Risk & Control Program was established and is continuously developed and updated. The scope of our Risk & Control Program covers six pillars reflecting the main business areas of INEOS Styrolution: Strategy & Business, Finance, Compliance, Operations (including SHE), Human Resources and IT.

The Risk & Control Program is embedded in a three lines of defense model as an integral component of INEOS Styrolution's governance, management and operations.

pillar heads are also responsible for implementing corrective actions to address control deficiencies.

### First line of defense

The first line of defense is undertaken by pillar heads, who are responsible for implementing and maintaining effective internal controls for their respective area of responsibility and for executing risk and control processes on a daily basis. The

### Second line of defense

The second line of defense is undertaken by the Compliance team, the Risk & Control department and the Risk Management Committee. The latter acts as the reporting medium for this line of defense. Compliance monitors various specific risks, such as non-compliance with applicable laws and regulations.

### THE SIX PILLARS OF OUR RISK & CONTROL PROGRAM



### THE THREE LINES OF DEFENSE



The Risk & Control Program covers our company’s key risks and controls per pillar. It facilitates the monitoring and oversight of effective risk management practices and assists the risk owners in assessing risk exposure and reporting. By this means, we intend to ensure compliance with legal requirements at all times. To strengthen the company’s governance structure, a Risk Management Committee has been established with representatives from each of the six pillars. This committee meets periodically to monitor the risk management process and drive continuous improvements within the Risk & Control

Program. The Risk & Control department coordinates this on a daily basis.

Risks are identified and assessed by considering impact and likelihood through risk workshops and risk assessments. Controls are then implemented to mitigate the identified risks. Annual control testing is performed within each pillar to determine if controls are well-designed and operating effectively. All controls are tested on a three-year-rotational basis. Results are reported to the CEO, CFO and Risk Management Committee members on a regular basis.

**Third line of defense**

The third line of defense is undertaken by our Internal Audit department. Internal audits are performed on the basis of an annual audit plan, which is approved by the management board. The audit plan is based on a risk approach and covers all entities and business functions of INEOS Styrolution. The scope of each audit is defined by the Internal Audit department in coordination with the management board. Audits cover control testing as well as sample-based testing. The Internal Audit function reports to the CEO.

**RISK MANAGEMENT PROCESS**



10.0 GET IN TOUCH



INEOS  
STYRCLUTION

# FOR MORE INFORMATION PLEASE CONTACT

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## GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

### GENERAL STANDARD DISCLOSURES

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<b>STRATEGY &amp; ANALYSIS</b>				
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G4-5	Location of the organization's headquarters	8	2	
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G4-7	Nature of ownership and legal form	10	2	
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G4-9	Scale of the organization	8	2	
G4-10	Employees by employment type, gender and region	63-64	5	
G4-11	Percentage of employees covered by collective bargaining agreements	67	5	
G4-12	Description of the supply chain	70	6	Partially addressed, breakdown of employees is only provided by gender and region
G4-13	Significant changes during the reporting period	10	2	
G4-14	Implementation of the precautionary principle	38	3	
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G4-16	Significant memberships in industry and business associations	20	2	

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G4-23	Significant changes in the scope and aspect			Not relevant
<b>STAKEHOLDER ENGAGEMENT</b>				
G4-24	Stakeholder groups engaged	18	2	
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G4-27	Key topics and concerns raised through stakeholder engagement and response	18-20	2	
<b>REPORT PROFILE</b>				
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G4-30	Reporting cycle	14	2	
G4-31	Contact point for questions regarding the report	14	2	
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GENERAL STANDARD DISCLOSURES		CONTENT	PAGE	CHAPTER	COMMENT
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G4-56		Values, principles, standards and norms of behavior	74	7	
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MATERIAL ASPECTS	DMA & INDICATORS	CONTENT	PAGE	CHAPTER	COMMENTS
<b>ENVIRONMENTAL</b>					
<b>Materials</b>					
	G4-EN1	Materials used by weight or volume	50	4	
<b>Energy</b>					
	G4-EN3	Energy consumption within the organization	52	4	
	G4-EN5	Energy intensity	52	4	
<b>Water</b>					
	G4-EN8	Total water withdrawal by source	53	4	
<b>Emissions</b>					
	G4-EN15	Direct greenhouse gas (GHG) emissions (scope 1)	55-57	4	
	G4-EN16	Energy indirect greenhouse gas (GHG) emissions (scope 2)	55-57	4	
	G4-EN18	Greenhouse gas (GHG) emissions intensity	55-57	4	
	G4-EN21	NO <sub>x</sub> , SO <sub>x</sub> and other significant air emissions	55-57	4	Partially addressed, only NO <sub>x</sub> and VOC emissions are reported

MATERIAL ASPECTS	DMA & INDICATORS	CONTENT	PAGE	CHAPTER	COMMENTS
<b>Effluents &amp; waste</b>					
	G4-EN22	Total water discharge by quality and destination	54	4	Partially, total waste water volumes are reported
	G4-EN23	Total weight of waste by type and disposal method	50	4	
<b>Products &amp; services</b>					
	G4-EN27	Mitigation of environmental impacts of products and services	22-29, 38-39	3	
<b>Supplier assessment</b>					
	G4-EN32	Percentage of new suppliers that were screened using environmental criteria	71	6	
<b>SOCIAL</b>					
<b>Employment</b>					
	G4-LA1	New employee hires and employee turnover by age group, gender and region	63-66	5	
<b>Labor/ management relations</b>					
	G4-LA4	Collective bargaining agreements	67	5	
<b>Health &amp; safety</b>					
	G4-LA5	Percentage of total workforce represented in joint management-worker health and safety committees	44	4	
	G4-LA6	Injuries, occupational diseases, lost days, absenteeism, and work-related fatalities	44-45	4	
<b>Training &amp; education</b>					
	G4-LA11	Percentage of employees receiving regular performance and career development reviews	66	5	
<b>Diversity &amp; equal opportunity</b>					
	G4-LA12	Composition of governance bodies and breakdown of employees by aspects of diversity	63-64	5	Partially addressed, breakdown of employees is only reported in terms of gender and age diversity

MATERIAL ASPECTS	DMA & INDICATORS	CONTENT	PAGE	CHAPTER	COMMENTS
<b>Supplier assessment for labor practices</b>					
	G4-LA14	Percentage of new suppliers that were screened using labor practices criteria	71	6	
<b>Labor practices grievance mechanisms</b>					
	G4-LA16	Grievances about labor practices	77	7	
<b>Investment</b>					
	G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights, including the percentage of employees trained	74-77	7	Partially addressed, qualitative assessment undertaken
<b>Non-discrimination</b>					
	G4-HR3	Total number of incidents of non-discrimination and corrective action taken	77	7	
	G4-HR4	Freedom of association and collective bargaining rights of operations and suppliers	67	5	
<b>Child labor</b>					
	G4-HR5	Operations and suppliers having significant risk for incidents of child labor, and measures taken	76	7	
<b>Forced or compulsory labor</b>					
	G4-HR6	Operations and suppliers having significant risk for incidents of forced or compulsory labor, and measures taken	76	7	
<b>Assessment</b>					
	G4-HR9	Number and percentage of operations that have been subject to human rights reviews or impact assessments	76	7	
<b>Supplier human rights assessment</b>					
	G4-HR10	Percentage of new suppliers that were screened using human rights criteria	71	6	
<b>Human rights grievance mechanisms</b>					
	G4-HR12	Grievances about human rights impacts	77	7	

MATERIAL ASPECTS	DMA & INDICATORS	CONTENT	PAGE	CHAPTER	COMMENTS
<b>Local communities</b>					
	G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	80-85	8	Qualitative assessment
<b>Anti-corruption</b>					
	G4-SO3	Number and percentage of operations assessed for risks related to corruption and risks identified	76	7	
	G4-SO4	Communication and training on anti-corruption	74-77	7	
<b>Anti-competitive behavior</b>					
	G4-SO7	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	76	7	
<b>Supplier assessment for impacts on society</b>					
	G4-SO9	Percentage of new suppliers that were screened using criteria for impacts on society	71	6	
<b>Grievance mechanisms for impacts on society</b>					
	G4-SO11	Number of grievances about impacts on society	77	7	
<b>Customer health &amp; safety</b>					
	G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	38-39	3	Qualitative assessment
<b>Product &amp; service labelling</b>					
	G4-PR3	Principles/procedures for product and service information and labelling	39	3	

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# INEOS STYROLUTION

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