

# Shared Vision

on a global perspective



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Global Reporting Initiative (GRI) indicators can be found in the index at the end of the report as well as in guide boxes next to content relevant to specific GRI indicators. The GRI indicators are based on the standard disclosure areas. One EOC Group own indicator is used.

G4-EC: *Economic*      G4-LA: *Labor Practices & Decent Work*  
 G4-EN: *Environmental*      G4-PR: *Product Responsibility*  
 G4-HR: *Human Rights*      EOC-DP: *Dialogue & Partnerships*  
 G4-SO: *Society*



EOC Group's Guide to Global Progress contains a number of focus points related to Economic Development, Social Progress and Environmental Responsibility. EOC Group has based these on the issues, values and concerns that are most important to all of EOC Group's stakeholders.

**VISION**

EOC Group aims for continuous improvement of Economic Development, Social Progress and Environmental Responsibility by enhancing the awareness of EOC Group's actions for the company, employees, society and other stakeholders.

**EOC GROUP'S SUSTAINABLE CHALLENGE**

With the increasing global awareness of the impact of the chemical industry, EOC Group endeavours to communicate more about the undertaking of investments, as part of the company's social responsibility involving stakeholders where appropriate.

**EOC GROUP'S SUSTAINABLE AMBITION**

The company aims to create awareness amongst employees and to participate in changing global attitudes on sustainability by producing efficiently, optimising processes and investing in preventive maintenance.

**STRATEGY**

In order to achieve the company's goals, EOC Group's strategy is to:

- initiate internal awareness amongst employees, enticing them to take the initiative to develop and participate sustainable projects and continuously improve attitudes towards sustainability in general and EOC Group projects specifically;
- forecast investment budgets using a long-term vision that adds value to the EOC Group brand;
- ensure innovation and sustainability are key management drivers that enable the business to grow;
- take sustainability initiatives beyond the legal regulations;
- engage and communicate with customers and other stakeholders about the steps the company takes concerning sustainability, focusing on the impact on them and/or society.

**EOC GROUP'S SUSTAINABILITY KEY AREAS**

**Economic Development**



Protecting the environment can be done in ways that have an economic benefit for the company whilst still maintaining quality and reducing risks. The company develops production methods that use fewer resources, save time and reduce costs to improve EOC Group's economic position.

**Social Progress**



EOC Group does not work in isolation: the company's actions affect the communities in which it operates, as well as the company's employees, the local government and other stakeholders. The company trains and empowers employees for the future, whilst taking responsibility for its actions.

**Environmental Responsibility**



The world's limited resources should be used responsibly, with as little waste as possible. EOC Group takes this knowledge seriously, reducing energy consumption and CO<sub>2</sub> emissions as much as possible.

# Message from the CEO

Welcome to EOC Group's Global Sustainability Summary Report 2017. This report follows on from our first Global Sustainability Summary Report, which was published in 2015.

Our sustainability efforts have continued and expanded over the past years, all based on our shared vision of a sustainable future. In fact, we believe that creating a shared vision of a sustainable and desirable future is the most critical task facing humanity today. This shared vision must be a world that we want. A world that provides permanent prosperity fairly, equitably and within the Earth's biophysical constraints. A world that is safe and healthy for us, other species and future generations.

The challenge is to develop a shared vision that is both desirable to the vast majority of humanity and ecologically sustainable. As environmental, economic and social crises deepen, we desperately need new visions of a sustainable world.

Isolated initiatives will not be enough to solve our interconnected plights. Instead, our shared vision should be seen as an ongoing process in which community members collectively identify common values, describe the future they seek and develop a plan to achieve common goals.

EOC Group distributed its previous Global Sustainability Report to customers around the world. Overall, reactions were positive with customers impressed with our sustainability efforts. Customers also said they felt confident in continuing to use our products knowing that we place such a high value on sustainability.

## SUSTAINABILITY AT EOC GROUP

Our sustainability approach focuses on three key sustainability areas:



### ECONOMIC DEVELOPMENT



### SOCIAL PROGRESS



### ENVIRONMENTAL RESPONSIBILITY

Based on the issues, values and concerns that are the most important to us, we have identified four focus points within

each of these three key sustainability areas. While all of these focus points are vital to our sustainability strategy, they do not get the same treatment in all of our locations. This is because each EOC Group location can select which focus points to concentrate their attention on. Their choice depends on their culture, requests of local stakeholders and the needs of their individual location.

## EOC GROUP AMBITION

Over the coming years, we will continue to improve our global status further by a mixture of global and local initiatives and investments. This includes aligning global sustainability initiatives; introducing new corporate programmes and measurement systems; increasing awareness and training; implementing new policies; and improving stakeholder interaction and communication.

## PAST, PRESENT AND FUTURE

It is undeniable that in the past, the chemical industry didn't have the best reputation. We are slowly turning this around. Current legislation, regulations and standards have had a positive influence on our industry, increasing awareness of the environmental consequences of our actions.

Instead of doing the bare minimum to meet current legislation, I am happy to say that EOC Group has taken this a step further, with EOC Belgium playing a key role in the global integration of the Sustainable Development Goals (SDGs). The incorporation of the 17 SDGs in our day-to-day business shows that we are determined to take the bold and transformative steps which are urgently needed to shift the world onto a sustainable and resilient path. We have taken sustainability to heart and developed a range of initiatives that meet our short-, medium- and long-term goals. In fact, these initiatives have seen us receiving prestigious environmental certifications and awards, benefiting from a safe working environment for our highly trained personnel, and investing in our facilities so our economic future remains bright.

This forward-thinking attitude forms the basis of our common vision of the future. While achieving this vision will probably be challenging, I'm sure that EOC Group – along with all our stakeholders – will be able to rise to the occasion. I, along with everyone at EOC Group, welcome the opportunity to discuss this vision with you.

To finish, I would like to thank everyone who has participated in creating this Sustainability Summary Report and everyone who has joined our effort to be(come) more sustainable.

*Gerard Marsman, CEO*

# Sustainability key areas



Sustainability is a vital part of EOC Group's business, combining economic development with respect for the natural environment and for people and the communities they live in. Sustainability recognises that the earth's scarce resources are not just for us, but also for future generations and it is essential that everybody works together so that these natural resources are not depleted.

Every action, task, project and process that EOC Group undertakes involves sustainability in some shape or form. By training EOC employees to use the right techniques and resources effectively, safety is improved and the consumption of raw material is reduced, which cuts costs and waste.

EOC Group has a clear objective: to become as sustainable as possible. This is a very broad objective. To make it easier to approach and achieve, the company uses the EOC Group's Guide to Global Progress. It is divided into 12 focus points, covered by the three sustainability key areas.

## Economic Development

- **Flexibility to adapt to changing situations:** actively developing solutions, encouraging new ways of thinking and working. This results in easier, quicker and more effective working processes.
- **Focus on results:** implementing projects successfully benefitting the employees, the entire company and the environment.
- **Long-term relationships:** achieving EOC Group's objectives is linked to the company's connections with stakeholders, governments and communities as they are directly and indirectly affected by what the company does.
- **Open dialogue:** understanding stakeholders, their needs, concerns and aspirations making a positive difference to the communities in which the company works.
- **Partnerships:** increasing expertise through strategic and collaborative partnerships with universities, knowledge institutions and industry groups.

### Economic Development FOCUS POINTS:

- production and resourcing
- profit through savings
- accountability
- dialogue and partnerships



## Social Progress

- **Safe procedures and operations:** ensuring the safety and security of EOC Group employees is a priority. Therefore the company has developed efficient and safe procedures.
- **Focus on health and well-being:** preventing injuries at work is the focus of the health and well-being initiatives. By working together, everybody can make safety a way of life, both inside and outside the workplace.
- **Empower the company and stakeholders:** cooperation in a collaborative way empowers everyone to build a working relationship based on respect, trust and responsibility.
- **Engage the community:** building work relationships with the local community benefits both the community and EOC Group.
- **Develop employee skills:** improving skills to make it easier and more efficient for employees to reach their goals.

### Social Progress FOCUS POINTS:

- safety and security
- health and well-being
- employee development
- community engagement



## Environmental Responsibility

- **Save energy:** lowering energy consumption reduces pollution and energy bills.
- **Reduce waste:** reusing, recycling and reducing the amount of waste lowers the company's environmental impact. This is a step towards achieving a neutral environmental footprint.
- **Lower CO<sub>2</sub> emissions:** reducing pollution minimises the environmental impact of the business on its surroundings. EOC Group takes pride in respecting the environments in which the company operates.
- **Sustainable water usage:** lowering water usage is important to the company's goal of achieving sustainability in the business.
- **Less water pollution:** reducing potential water pollution results in a lower environmental impact for the planet.

### Environmental Responsibility FOCUS POINTS:

- energy savings
- reusing, recycling and reducing waste
- less CO<sub>2</sub> emissions
- less water use and less water pollution

*Reporting organisation + Legal form*

EOC Group of companies

*Location of headquarters*

Full details on page 12

*Nature of ownership*

100% privately owned

*Reporting Period*

Global data for the year ended December 31, 2016

*Reporting cycle*

Bi-annual

*Accordance level Global Reporting Initiative*

G4 - Core

The EOC Group Global Summary Report 2017 has not been reviewed externally prior to publication, nor has assurance on the entire report been requested.

The information presented in this report only covers EOC Group. No external parties are included in the data.

*Questions regarding the report or its content, contact:*

sustainability@eocgroup.com

## About this report

The previous report was a break-through report giving a relevant overview of EOC Group's Global Progress towards sustainability. This report focuses on 'EOC Group's Shared Vision on a global perspective'.

This second global report fulfils EOC Group's obligation to communicate further about relevant and material aspects of EOC Group's Shared Vision on a global progress. It outlines indicators which, when read together, reflect the implementation of EOC Group's sustainability strategy and its objectives, as well as the achievements of global production sites. Listening and responding to various stakeholders has become an important part of the decision-making and innovation processes. The report helps EOC Group's business on a global perspective, to be better positioned in the future business context.

It provides an overview of economic development, social progress and environmental responsibility. Each of these aspects is looked at in depth, with details of relevant legislation, voluntary programmes and certification processes.

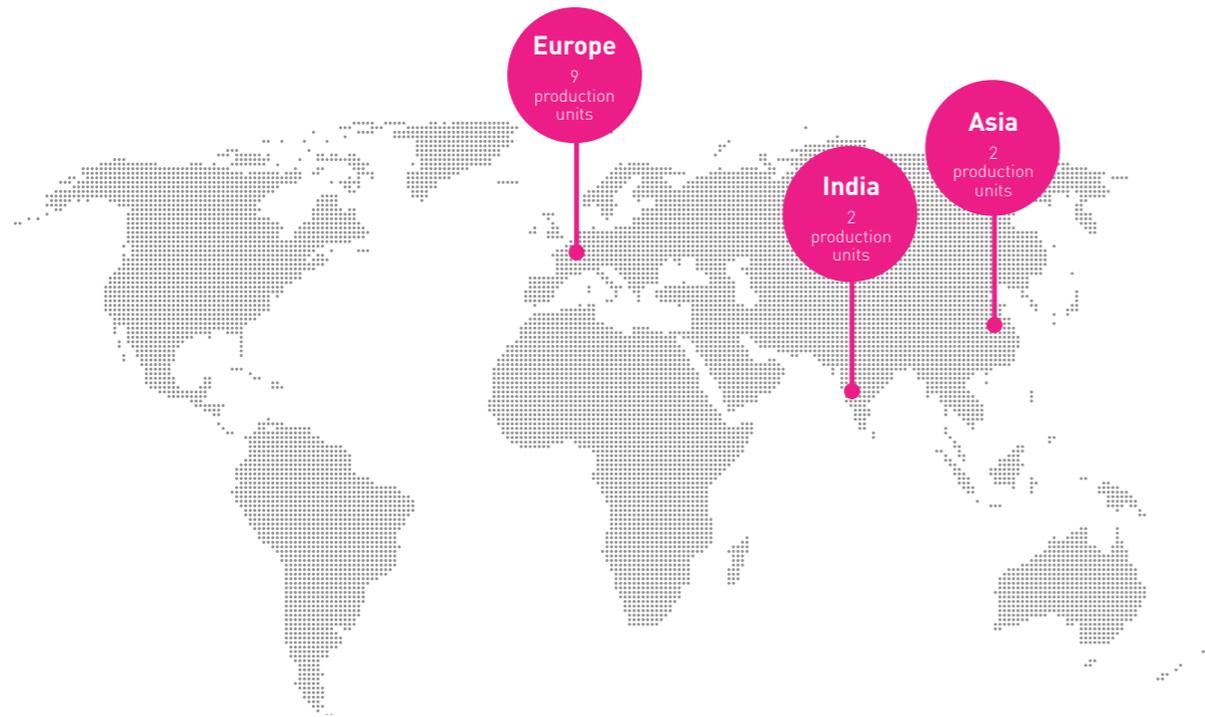
In this report EOC Group has endeavoured to create a link between the company's daily strategy and its global progress towards increased sustainability. The report gives a view of EOC Group's performance to date as well as giving an impression of the company's future goals.

EOC Group focuses on continuous monitoring and reporting on economic, social and environmental aspects in the pursuit of genuine business performance goals. EOC Group is working on complying with complete and consistent data on a global level. The goal is to align all the EOC Group sites globally by the next report.

The latest data set from a three-year period (2014 to 2016) makes the information statistically relevant and comparable in the future. Health and safety, social, economic, quality and environmental data has been compiled according to international best practices.

EOC Group's communication portfolio comprises, not only the print version of the Global Sustainability Summary Report, but also the digital pdf version. On the internet, EOC Group's corporate website ([www.eocgroup.com](http://www.eocgroup.com)) contains a dedicated section on sustainability.

THIS REPORT COVERS EOC GROUPS OPERATION SITES IN THE FOLLOWING GEOGRAPHIC AREAS:



**ASIA**

**EOC POLYMERS (CHINA) CO., LTD**  
China - Shanghai

**EOC POLYMERS (THAILAND) CO., LTD**  
Thailand - Rayong

**INDIA**

**EOC POLYMERS INDIA PVT. LTD**  
India - Sonipat (Delhi)

**EOC TAILOR MADE POLYMERS INDIA, LTD**  
India - Mumbai

**EUROPE**

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Belgium - Oudenaarde

**EOC LOGISTICS NV**  
Belgium - Oudenaarde

**EOC MANAGEMENT NV**  
Belgium - Oudenaarde

**EOC SURFACTANTS NV**  
Belgium - Evergem

**EOC EINKAUF AG\***  
Switzerland - Cham

**EOC UK**  
United Kingdom - Manchester

**BRANCHES OF EOC BELGIUM NV:**

**EOC DUBAI\***  
UAE - Dubai

**EOC ITALY**  
Italy - Vercelli

**EOC NETHERLANDS**  
The Netherlands - Hoogeveen

**EOC POLAND**  
Poland - Kozenice

**EOC PORTUGAL**  
Portugal - Portalegre

**EOC SINGAPORE\***  
Singapore - Singapore

**EOC SPAIN\*\***  
Spain - Valencia

**EOC TURKEY**  
Turkey - Tekirdag

\* EOC Einkauf, EOC Dubai and EOC Singapore are not included in the data, as EOC Group focused for this report on the production facilities.

\*\* The data of EOC Spain are included in the data of EOC Portugal.

# Sustainable governance

EOC Group's sustainability committee is becoming increasingly important for the company's future success. It will create more value – for customers, employees, communities and the company – while simultaneously reducing the company's environmental footprint on a global level.

oversight and strategic guidance. Result oriented integration and effective management of sustainability requires commitment by leaders, a clear direction, and strategic influence, all based on thorough governance structure. Sustainability governance helps EOC Group to implement its sustainability strategy throughout the business, manage processes, strengthen the relations with internal and external stakeholders, and ensure accountability.

At EOC Group, the sustainability committee keeps four issues in mind when building its governance structures:

- Reporting to the CEO proves that EOC Group is serious about sustainability;
- Accountability helps ensure that sustainability is integrated with our global business goals;
- Sustainability governance structure that aligns with and complements EOC Group's existing business model which make organisational structures more successful;
- Allowing adaptation helps ensure the sustainability implementation's relevance to a business unit's own strategies or region's local conditions.

EOC Group's Environmental Manager based at the company's corporate headquarters in Oudenaarde, Belgium, was appointed to lead the internal and external sustainability strategy, global implementation and be responsible for the advancing of EOC Group's sustainability program. Supported by the cross-functional sustainability committee, also based at headquarters, which represents EOC Group's interests concerning Quality Assurance, Environment, Human Resources, Health & Safety, Communication, Production, Research & Development, Purchasing, Regulatory Affairs, and General Management. They engage leadership across business units, regions, and provide

In the future, the committee will focus more on equalising standards and initiatives across the entire EOC Group, bringing sustainable best practices to all locations. They are connected with the highest management level in each EOC country to assist with sustainability queries while promoting local, new initiatives; creating awareness of EOC Group's 'Shared Vision on a global perspective' commitment; and encouraging them to commit and engage all EOC Group employees around the world.

# Global production

The EOC Group consists of 7 divisions with production and distribution sites located in strategic areas in Europe, Asia and India that are close to both customers and raw materials.

The EOC Group offers a wide range of quality products for the textile, carpet, construction, automotive, non-woven, paper, cardboard, paint, adhesive, detergents and cosmetic industries.

## 7 PRODUCT RANGES

EOC Group is ideally placed to make products with unusual specifications that satisfy the constant demand for innovation and environmentally friendly production methods. New developments are tested immediately, so customers can decide for themselves if a new product satisfies their requirements.

EOC Group's employees consider the environment at every step of the production process. This ecological outlook has its rewards for customers too.

### ADHESIVES

EOC Group produces a wide range of water-based adhesives, powder adhesives and hot melts for a variety of industries and applications.

### SURFACTANTS

The main activity of EOC Surfactants is the production of mild, high quality, surface-active agents for foaming personal care products and liquid household formulations. Most of these ingredients are also used in various industrial applications.

Furthermore, EOC Surfactants offers a range of additives to enhance the visual, physical or sensorial properties of detergent and personal care products.

### COMPOUNDS

There are numerous applications for latex compounds using a mixture of natural and synthetic latex. Latex compounds also play an important role in binding pile material, improving cutting strength and increasing the comfort of the end product.

### EMULSIONS

The EOC Group's Emulsion Division is always innovating to create superior quality products that are tailor made to meet the specific needs of customers in a wide range of industries.

### LATICES

The EOC Group's dedicated Research & Development (R&D) Latex Division has developed and launched a multitude of latex grades for use in a wide variety of industries.

### POLYURETHANES

EP Polyurethanes dispersions are waterborne, surfactant-free

dispersions of carboxylated urethane polymers, based on a wide range of chemical raw materials. They are high quality products used for wood and plastic coatings.

### TEXTILE CHEMICALS

Textile Chemicals Division (TCD) specializes in enhancing textile properties to protect our vehicles, our buildings and our lives. Flame Retardancy is one of the main topics when it comes to safety and protection. Textile Chemicals Division has its own R&D department and laboratory, which provides us with the knowledge and production capabilities to find a solution suited to specific needs.

*EOC Group produces an abundance of high quality products, which are often customised. Thanks to the extensive production and storage facilities, each order is delivered within the agreed time period anywhere in the world.*

## GLOBAL PERSPECTIVE

### PRODUCTION IN EUROPE

#### *EOC BELGIUM NV - Oudenaarde / Evergem*

The EOC Group has 5 divisions in Belgium: Adhesives, Compounds, Emulsions, Latices and Textile Chemicals.

The Adhesive Division produces a wide range of water-based adhesives for the paper converting, packaging, building and automotive industry, plus hot melt adhesives for the assembly, graphical, packaging and tapes & label industry.

The Compound Division is the largest European producer of latex compounds for the carpet industry. Latex compounds are used in the carpet, textile, automotive and aviation industries.

The Emulsion Division delivers tailor-made polymers for inks, paints and coating, construction and adhesive applications.

The Latex Division mainly produces styrene-butadiene latices and acrylonitrile-styrene-butadiene latices for the carpet, textile, paper, board and building industries.

The Textile Chemicals Division specializes in enhancing textile properties to protect vehicles, buildings and lives.

#### *EOC SURFACTANTS NV - Evergem (Belgium)*

EOC Surfactants produces high-quality surface-active agents for foaming personal care products and liquid household formulations. This includes additives enhancing visual, physical or sensorial properties of products. The surface-active agents are also used in polymers, coatings and inks, adhesives, textiles, metal, crop protection and the oil industry.

#### *EOC ITALY*

EOC Group took over *Resla* in 1996 and produces surfactants and a wide range of water-based products, such as 'tailor-made' compounds on the basis of natural and synthetic latex, binding agents and emulsions, chemicals and accessories, adhesives and specialties.

#### *EOC NETHERLANDS*

In 1998 EOC Netherlands opened to produce compounds based on carboxylated styrene butadiene latices for customers based in the Netherlands and northern Germany. The facility also produces hot melts.

#### *EOC POLAND*

EOC Poland has been an official production unit of EOC Group

since 1995. The company produces water-based adhesives for the paper, building, chemical and textile industries.

#### *EOC PORTUGAL*

EOC Portugal was established in 1994 to manufacture natural and synthetic latex with vulcanisation paste compounds for the automotive industry. Today the company produces adhesives and emulsions. The production of surfactants stopped at the end of the reporting year 2016.

#### *EOC SPAIN*

In 2015 EOC Spain started with the production of adhesives for the paper converting, packaging, building and automotive industry. In general the site is steered by EOC Portugal.

#### *EOC TURKEY*

In 2011 EOC Turkey started to produce latex compounds, flame retardant compounds and additives for the textile, carpet and upholstery markets. EOC Turkey will shortly start distribution activities to expand its presence in Turkey.

#### *EOC UK*

Since 1985, EOC UK is a reputable supplier of adhesives and high quality compounds for the carpet, textile and automotive industries. The company has acquired the British Standard BS 5750 certificate for its stringent quality control procedures.

### PRODUCTION IN ASIA

#### *EOC POLYMERS (China) CO., Ltd. - Shanghai*

Strategically placed, EOC Polymers (China) has facilitated quick transportation and timely delivery services of quality polymer compounds to customers in the Chinese textile and carpet industry since June 2008. The facility also produces adhesives and surfactants.

#### *EOC POLYMERS (Thailand) CO., Ltd. - Rayong*

Since 1995, EOC Polymers Thailand is a producer of emulsion polymers for the paint, ink and construction industry.

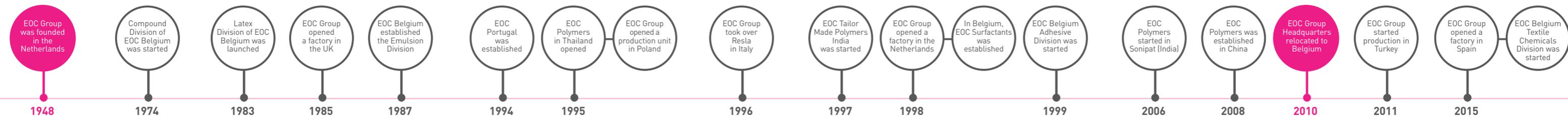
### PRODUCTION IN INDIA

#### *EOC TAILOR MADE POLYMERS INDIA, Ltd. - Mumbai*

EOC Tailor Made Polymers India is a joint venture with *Paj Prakash Chemicals Ltd.* for the production and sale of high quality water-based acrylates. A wide range of products for the paint, construction, glue, textile and paper industries, including specific Indian applications are introduced since 1997.

#### *EOC POLYMERS INDIA Pvt. Ltd. - Sonipat (Delhi)*

Since 2006, EOC Polymers India manufactures carboxylated latex and other innovative latex technologies for customers in the carpet, paper, non-woven and construction industries in India.



# Quality Assurance

Our reputation in the industry is based on our high-quality products. We take quality extremely seriously, complying with relevant local, regional, national, and international rules and regulations. We are proud of our commitment to environmental, social and quality matters.

## MANAGEMENT SYSTEMS

EOC Group uses international, independently verified management systems to underpin our approach to sustainable development. Here is a selection of the certifications that we have achieved.

### ISO 9001 certification for quality

Based on 7 quality management principles, this standard focuses on ensuring EOC Group's customers receive consistent, good quality products and services.

### GMP certification

Good Manufacturing Practice certification requires conforming to guidelines for the manufacturing of cosmetics and pharmaceutical products. The purpose is to ensure high quality products so that every batch can be safely used for its intended purpose without waste.

### EFQM certification for quality

The EFQM Excellence Model supports sustainable economic development by giving a full view of the company, its activities and current quality models to determine how these models can work together for the benefit of the entire company.

### ISO 14001 certification for environmental management

*ISO 14001* helps EOC Group to identify, manage, monitor and control their environmental issues. This results in improved environmental performance through waste reduction and efficient resource use.

## OHSAS 18001 certification

Occupational Health and Safety Assessment Series assists EOC Group to implement good occupational health and safety procedures that benefit personnel, suppliers and visitors to company premises.

## Kosher certification

The certificate insures that the product or company is strictly kosher and follows the kosher guidelines. This Kosher certificate is internationally renowned and stands for reliability and quality. Also the certificate makes sure that the cleaning and transport is according to the rules of the rabbinate.

## AEO certification

The voluntary Authorised Economic Operator (*AEO*) programme aims to enhance international supply chain security and to facilitate legitimate trade. It covers economic operators authorised for customs simplification, security and safety or a combination of the two.

## GLOBAL STANDARDS

We also comply with a number of internationally recognised principles and global standards. In fact, the EOC Group Code of Conduct incorporates a number of them, including the *United Nation Global Compact (UNGC)* and the *International Labour Organisation (ILO)*. The ten principles of the *UNGC* covers human rights, labour, environment and anti-corruption issues. And the *ILO's* core labour standards include eliminating forced and

compulsory labour, abolition of child labour and the right to trade union representation.

## INTERNAL POLICIES

As part of our certifications in quality, safety and environmental management systems, we have implemented a number of internal policy statements for our locations around the world, these include:

- Environmental policy statement
- Health and safety policy statement
- Hygiene policy statement
- Written drinking, eating and smoking policy statement (*in production areas*)
- Written jewellery policy statement
- Broken glass policy statement
- Pest control policy statement
- Internal safety audit programme policy statement
- Communication and awareness policy statement
- Responsible procurement policy statement

## CHANGING REGULATIONS

Laws, norms, codes, regulations and performance standards are always discussed, investigated and changed. It's important that we remain aware of all these changes and the effects that they could have on our company. We experienced many changes. Concerning transport and logistics, we have adapted our working

practices in the UK to encompass the new regulations for new packaging being used or filled for the first time. This includes ensuring the new packaging can be reused and that it contains the minimum volume and weight to maintain the safety and hygiene of the packaged product and the consumer. And a new toll has been introduced for heavy vehicles travelling on Belgian motorways which has had an impact on our transport costs.

Based on changing environmental regulations in India, we are investigating using more environmentally friendly raw materials to minimise or negate water pollution. We reduce the water effluent and reuse and recycle discharged water to meet MPCB's new norms. In the UK, new regulations the process for determining hazardous waste has changed. Hazardous waste now includes any packaging that previously contained hazardous materials and has not been decontaminated using an approved method.

New ISO 9001 and 14001 quality standards came into effect in 2015. There is a three year transition period, which gives us until the end of 2018 to comply with the new standards. These require more risk-based thinking to support the process approach and more focus on outcomes that improve customer satisfaction.

Changes in health, safety and hygiene standards have changed our procedures for hazardous waste in the UK and Belgium.

**EXTERNAL PARTNERS**

We rely on trusted partners to help us produce a consistently high level of quality across our entire organisation. In China we work

with *Shanghai Bo Shuo* and *Xiamen Caiju*, two quality assurance organisations, to help maintain our quality. And in the UK, we work with the *British Standards Institution (BSI)*, the accreditors for our ISO 9001 and ISO 14001 management system certifications, to ensure our procedures comply with these environmental and quality standards.

EOC Group also helps our suppliers to improve their knowledge about sustainability as well as the services they offer. In Portugal, we regularly organise safety trainings for suppliers that need to work onsite to minimise the risk of accidents. And we provide training materials to our suppliers in China about raw material handling.

**CUSTOMER SATISFACTION**

As well as working with external partners and suppliers, we also listen to our customers to discover how we can help them better. We send out customer satisfaction surveys every 6 months or a year (depending on location) and follow the results up closely. Questions cover the *Global Sustainability Summary Report*, EOC Group sustainability strategies, quality concerns, service range and products. Generally, customer feedback is positive, with most customers agreeing that our approach to sustainability is important to them. However, some customers have requested we try and further reduce packaging and investigate how to reduce heat exposure during long distance transport. These comments are currently being investigated and new initiatives to tackle these issues will be implemented shortly.

	ASIA		INDIA		EUROPE							
	China	Thailand	Delhi	Mumbai	Belgium	Italy	Netherlands	Poland	Portugal	Turkey	UK	Spain
<b>MANAGEMENT SYSTEMS</b>												
<b>QUALITY (QMS)</b>												
ISO 9001	●	●		●	●	●	●		●		●	
EFQM			●									
GMP*	●				●							
<b>ENVIRONMENTAL (EMS)</b>												
ISO 14001	●	●			●				●		●	
EMAS				●								
<b>SAFETY</b>												
OHSAS 18001					●				●			
<b>FOOD SAFETY</b>												
BRC				●								
HACCP				●								
KOSHER**					●							
<b>UNION CUSTOMS CODE (UCC)</b>												
AEO***				●	●							
<b>INTERNAL POLICIES</b>												
Environmental Policy	●	●	●	●	●	●	●	●	●	●	●	●
Health and Safety Policy	●	●	●	●	●	●	●	●	●	●	●	●
Hygiene Policy	●	●	●	●	●	●	●	●	●	●	●	●
Drinking, Eating and Smoking Policy	●	●	●	●	●	●	●	●	●	●	●	●
Jewellery Policy					●							
Broken Glass Policy		●			●	●	●		●		●	

\* GMP - Belgium: EOC Surfactants is holder of the Good Manufacturing Practices (GMP) certificate for its manufacturing site in Evergem, Belgium. EOC Surfactants produces according to the GMP-guidelines, as put forward by the 'European Federation for Cosmetic Ingredients' (EFIC).

\*\* Kosher - Belgium: EOC Surfactants and EOC Logistics are certified since 2016. The certificate insures that the EOC Surfactants products and EOC Logistics are strictly kosher and follow the kosher guidelines. This kosher certificate is internationally renowned and stands for reliability and quality.

\*\*\* AEO - Belgium: EOC Logistics was certified end of 2015 as Authorised Economic Operator (AEO). The programme, which aims to enhance international supply chain security and to facilitate legitimate trade, is open to all supply chain actors. It covers economic operators authorised for customs simplification, security and safety or a combination of both.

# Research and development

New products, new applications and new procedures are all essential to our future. That's why research and development is an integral part of achieving our global sustainability goals for environmental, social and economic progress.

Across the EOC Group, our 7 Research & Development (*R&D*) divisions are using different focus points to target their research. This includes using alternative synthetic pathways or reaction conditions, designing safer chemicals, using renewable or recycled feedstocks, avoiding persistent, bio accumulative and toxic substances and increasing energy efficiency.

Together our actions have led to a range of environmental and societal benefits, including:

- Avoiding the usage of persistent, bio accumulative, toxic and otherwise hazardous materials;
- Utilising renewable resources and decreasing consumption of non-renewable resources;
- Minimising the negative environmental impacts of chemical processing and manufacturing;
- Improving material and energy efficiency;
- Decreasing or eliminating the costs of hazardous waste treatment;
- Reducing potential industrial liability;
- Providing technologies that are economically competitive for and advantageous to the industry;
- Promoting an understanding of the benefits of sustainable chemistry; and
- Attracting promising students and employees to chemistry and related fields.

We assess each new product or improvement based on a number of criteria on a local, national, regional and global level. The criteria include:

- Impact on human health and the environment;
- Safety of workers and users throughout the product lifecycle;
- Energy consumption and resource use; and
- Economic viability.

## ADHESIVES

The Adhesive Division has always worked to find solutions that are as economical, as safe and as environmentally friendly as possible. This includes reducing waste. For example, almost all waste water is reworked into our formula and older adhesives are reworked into similar types of adhesives. In general, the Adhesive Division is contacted by larger customers who have a stronger philosophy concerning sustainability.

Three recent projects in the Adhesive Division include developing enzymatic degraded starch glues, developing borax-free dextrin grades and reducing volatile organic compounds (*VOC*) in our polymerization process.

The enzymatic degraded starch glues are used in paper

lamination, especially in the Mediterranean region. Starch glues costs less than synthetic glues, plus they are more sustainable and don't contain any hazardous substances making them more environmentally- and people-friendly.

As borax is a substance of very high concern (*SVHC*), its use needs to be limited. The tube winding industry, for example, is forbidden from using borax in their products. And the ban on borax could spread to other industries that use adhesives. This means a borax-free alternative was required. The Adhesive Division has developed a borax-free tube and is now working on a range of borax-free adhesives. In addition to ensuring the borax-free products fit within the new legislation, the products also improve the safety of the working environment thanks to the absence of the *SVHCs*.

The third project relates to reducing *VOCs*, such as *VAM*, in the polymerization process. This reduction results in a lower exposure of *VAM* and its related odours in the production process, improving the working environment. Our in-house polymers contain less than 1000 ppm *VAM*, which results in less odour and emissions in the final product. It is important to reduce *VOCs*, especially *VAM*, as it is hazardous and suspected to cause cancer. This reduction has had an immediate impact on the health of production workers and the surrounding environment.

## SURFACTANTS

The Surfactant Division mostly works for customers in the cosmetics and detergents industries who require eco-friendly surfactants that easily biodegrade and surfactants with a high renewable carbon index, suitable for *EU Ecolabel* or *COSMOS* labelling. Increasingly, customers demand greener alternatives to betaines and aminoxides.

The division's main goal at the moment is the *EU Horizon 2020* goal of developing new technology and new production methods using bio-fermentation. The EOC Group's efforts are focused on bio-surfactants, as these have a very low environmental impact as they are produced only using materials from renewable sources. Additionally, there isn't a chemical reaction process or chemical solvent involved in production.

Together with the *University of Ghent (Belgium)*, we are developing a bio-surfactant – sophorolipiden / bolasophorolipiden. The EOC Group is involved in checking the product's properties in various applications, such as detergents, against traditional surfactants like betaines and aminoxides.

Additionally, the Surfactant Division is investigating glucamides, green surfactants with a low eco-toxic profile, that can be produced using the existing equipment and production installation. These can then be used in detergents, cosmetics

and industrial applications, as well as new market segments. Reducing the eco-toxic profile will increase the environmentally-friendliness of the end product.

## COMPOUNDS

The Compound Division focuses its R&D efforts on finding sustainable products while keeping a strong overview on cost-efficiency. One recent project that demonstrates this dual focus were a series of bio-based compounds developed as a binder for the carpet industry. The project was started due to market demand for environmentally friendly and cost-efficient solutions. The resulting compounds allow customers to work cost-efficiently, improving product quality. Even though these compounds were originally requested by the UK market, they are also available in other markets around the world.

## EMULSIONS

Research goals for the Emulsion Division are frequently driven by changes in national laws as well as customer requests and problems. Changes in national laws and increased consumer awareness has led to the department going back to the basics by screening all possible raw materials, including their safe usage, toxic profile and reach registration.

Three of the current projects that the Emulsion Division is

working on are: a greener version of our classical styrene acrylic emulsion; dextrin as a partial replacement for acrylic acid in polyacrylic water soluble dispersions; and reducing formaldehyde usage.

The first of these projects, developing a greener version of our classical styrene acrylic emulsion using modified starch (*dextrin*) as a stabiliser, was started based on an internal suggestion. After a series of trials in the laboratory, a full screening was done. Unfortunately, the screening showed a completely different behaviour compared to the standard references. The water resistance, one of the most important properties in the coating world, became zero as soon as starch was used. For this reason, this product was not suitable as a coating, so the project was stopped.

The second project initiated internally was using dextrin as a partial replacement for acrylic acid in polyacrylic water soluble

dispersions for use as an anti-scaling agent in detergents and washing up liquids. As the customer requires a certain amount of biodegradability in their final formulation, it was important to build in dextrin molecules to ensure our product would measure up. While our partially biodegradable polyacrylic solution polymer is not yet ready to be launched on the market, it is hoped that this will support our Surfactant Division to better serve their customers.

The third project is to reduce the amount of formaldehyde in our products. Because it is considered a toxic substance, the inclusion of formaldehyde is preventing increasing numbers of our customers from receiving environmental labels and certifications, such as *'ecolabel'*, for their end products. To help these customers we are working on products that contain a small amount or are completely free from formaldehyde.

Some of these project goals have been initiated due to customer



Adhesives



Surfactants



Compounds



Emulsions



Latices



Polyurethanes



Textile Chemicals

requests, others from internal suggestions. Either way, the products that are developed in the Emulsion Division in Belgium are quickly transferred to India and Asia to be produced locally while maintaining European standards for health and safety, which are often higher than Asian and Indian standards. This introduces healthier and greener products and solutions to a less sustainable market.

### LATICES

Over the past decade, the Latex Division has expanded its product scope to focus on sustainable alternatives. This means investigating how a product can be recycled, how its raw materials can be renewed and how bio-degradable it is. Two products that the Latex Division has recently worked on are binders for the pigmented paper industry and the carpet industry.

*BEL2100*, *BEL2101* and *BEL2102* are three partially bio-based latices designed as binders for the pigmented paper industry. They were developed in response to market demands for cost-effective bio-based binders.

*SL-1000* series are partially bio-based latices designed as binders for the carpet industry. Like the pigmented paper binders, they were developed as a cost-effective solution for their target market.

### POLYURETHANES

Sustainability has always been a main focus for every part of the development process for the Polyurethane Division (*PU*). All raw materials in every formulation are investigated to ensure they are not on an environmental grey or black list, so they have minimal ecological impact on our world. Likewise, emissions are kept to a minimum. Furthermore, solutions are developed with the end price in mind as the Polyurethane Division understands that if a sustainable solution is priced above the competitive market, the customer will often opt for the 'classic' raw material, regardless of its additional environmental burden.

Three of the many projects undertaken by the Polyurethane Division are: a reactive PU pre-coat for artificial turf; PU coating to replace PVC in entrance mats; and a PU foam-coat for artificial turf.

The reactive PU pre-coat for artificial turf will give customers the opportunity to choose between PU and latex solutions. The solution contains almost 100% solids, without any plasticizers or leachable components and with virtually no emissions. Processing is three times faster than latex productions, requires lower temperatures to work and has a significantly lower energy consumption. It is also less than half the weight of a latex coating for the same properties. Currently the PU pre-coat is in the final development stage with long-term approval trials.

Dirt control mats (*DCM*) and entrance mats use plastisol coatings that have low levels of leachable plasticizers and high levels of chlorine. The Polyurethane Division is working on an alternative based on reactive PU with 100% solids that will not contain any plasticizers or chlorine and is virtually emission and leachable free.

Another project is a PU foam-coat that can be used as a shock pad for artificial turf. As part of the artificial turf, it reduces the shock impact on athletes' bodies and joints. It has the potential to replace the rubber infill that is currently the focus of numerous ecological and safety discussions.

While PU formulations aren't recyclable by re-melting, they can have a second life as a PU waste coating as plasticizers aren't present. Additionally, PU waste is high in energy and doesn't contain chlorine, so energy recycling is also an option.

### TEXTILE CHEMICALS

It is standard practice within the Textile Chemicals Division (*TCD*) to search for products and solutions to add to our portfolio that are both environmentally friendly and good for human health. During the reporting period, the Textile Chemicals Division has been involved in a number of different sustainable projects. Two of these include making textiles fire-retardant and making fabrics water- and oil-repellent.

Current fire-retardant textiles often use halogen as it has a very good price-performance balance. However, halogens are suspected to have a negative impact on the environment and human health. For this reason, EOC Group has been investigating halogen-free products. The result was halogen-free fire-retardant products.

While most fire-retardant textiles still contain halogen, we believe that it will not be long until consumer awareness of the dangers of halogen increases, turning attention to our eco-friendly and durable halogen-free solutions. And as demand increases, more R&D focus will be shifted towards these solutions which will lead to better and cheaper solutions.

The second project concerns making fabrics water- and oil-repellent. The market is under pressure to find environmentally friendly alternatives that offer the same performance as the products already on the market. EOC Group's Textile Chemicals Division developed an eco-friendly solution called *Exocare* which has gained a lot of attention.

# Innovation

Sustainability and innovation go hand-in-hand. Innovative products, processes and applications can reduce our environmental impact, increase our social progress and improve our economic development.

With this in mind, EOC Group announced a simple company-wide innovation strategy: to create more sustainable products, processes and applications, as this is vital to the future growth of our business. However, within this strategy, each business unit is free to develop their own flexible approach to innovation assisted by its own R&D department.

One aspect that we are working on is the Eurocentric nature of our innovation. Currently, solutions are created and developed at our Belgian headquarters before being rolled out around the world. As we tend to evaluate products based on their performance in Europe, we don't focus enough on modifying these solutions to suit the needs of our customers in China, South East Asia and India.

## INNOVATION DRIVING SUSTAINABLE GROWTH

EOC Group constantly evaluates how it introduces new developments and how they can become more sustainable. This starts with raw material selection and continues through product development, process development and application to final transportation to the customer.

In general, we select bio-based raw materials. Our product development is moving towards partial and even full replacement of traditionally used products by more sustainable alternatives. We are developing products that do not use solvents or that

replace solvents with water. And when we develop processes, we always investigate ways to reduce energy usage and lower or eliminate the amount of emissions our products cause during production or their subsequent application.

In this way, we believe we are developing products that meet and exceed the wishes of our customers and their customers. However, there is still a lot of confusion about which sustainable targets our customers and their customers want to achieve. Do they prefer a product based on bio-materials or on bio-based raw materials? Does it need to be biodegradable, compostable or recyclable? Different customers interpret sustainability in different ways and we need to offer products that reflect this.

Unfortunately, sustainability does not create a real competitive advantage in the market today. This is mostly due to the industry's unwillingness to pay a premium for most sustainable products. Only a few products, such as polylactic acid, have reached a production level where they can compete on price with the traditionally used products. Most of our current innovation is only appreciated by customers who put sustainability above cost.

Measuring the results of innovation can be challenging. EOC Group uses two key measures to discover the impact of innovation. The first measurement is technical. Even if the product is not competitively priced under the current economic

situation (*cost of raw materials, production volumes, etc.*), we still ensure that it meets the needs of customers and performs as expected in the application. And the second measurement is financial and looks at the sales turnover and margin generated by these new products.

## PARTNERING FOR INNOVATION

EOC Group collaborates with strategic partners, customers and academics in order to research new products, processes and applications. This group of partners is likely to be enlarged in the near future to include selected suppliers in order to help us achieve our goals sooner. However, finding suitable partners isn't always straightforward as they don't often advertise their knowledge or interest widely. In the coming period, EOC Group plans to do more networking to find potential new partners, especially non-European partners as they are currently underrepresented in our innovation collaborations.

## THE FUTURE OF INNOVATION

In addition to starting new collaborations with European and non-European partners, EOC Group is looking at implementing new business models to further encourage innovation at the company. This includes developing new value offerings, creating new lower-cost models and finding new ways to monetise existing products and services.

For example, can we develop products that allow our customers to eliminate a process step in their production? Or deliver products that require a lower application rate? Or can we use existing technological capabilities to introduce new products (e.g. *sulfobetaines, phosphate esters, self-crossing XSBR*) or enter new markets (e.g. *carpet tile segment, oilfield market, non-woven market*)? There is a world of possibilities that we are starting to explore.

## Innovation examples

### HYBRID BIOACRYLATES: USING BIOMASS IN SYNTHETIC BASED MONOMERS

- Surfactant Division and Emulsion Division

EOC Group developed hybrid bioacrylates: a series of products where the synthetic based monomers were replaced by a biomass component. Hybrid bioacrylates are ideally suited for laundry detergent, oilfield water treatment, general water treatment and super-plasticisers for cement composition applications.

Inspiration for the innovation came from some national starch patents and some internal EOC Group developments on the use of biomass in *XSBR* latices.

Using more bio-based raw materials improves the sustainability of the product, especially as the product is biodegradable thanks to the biomass, unlike the current synthetic based monomers. Furthermore, given the market price of synthetic raw materials compared to biomass raw materials, the product price could be reduced too.

Within the project, each partner had a separate role. EOC Group worked on the development and initial screening of the different polymer and biomass products in the different applications. Based on these findings and feedback from key users, we modified and optimised the structure of the products.

Other partners included:

- Specialists who consulted on the laundry and dishwasher formulations and evaluated the sequestering agents in these formulations;
- *BWA*, an external company that specialises in water treatment;
- *Halliburton*, an external company that specialises in water treatment in oilfield applications; and
- *Geos*, an external consulting company that specialises in the evaluation of additives for cement formulations.

This innovation will allow EOC Group to be more competitive in a range of new markets, including household detergents,

construction and oilfield. From an environmental point of view, using biodegradable alternatives to the currently used products will have less impact on the planet as there will be less stress on waste water from detergents and no impact on seawater in case of accidental spillage in the North Sea oilfields.

### NOVEL BIOSURFACTANTS: SOPHOROLIPIDS AND BOLA-SOPHOROLIPIDS

- Surfactant Division

This is an ongoing innovative project to develop novel biosurfactants. The first phase, *IB2M*, finished in 2016 and was followed by phase 2, *Carbosurf*, which is ongoing. Novel biosurfactants are potentially suitable for use in detergents and personal care applications.

Within the surfactants area, there is a growing trend towards greener products and processes. The new biosurfactants, sophorolipids and bola-sophorolipids, are made by a fermentation process where bacteria produce the required biosurfactants from fatty acids and glucose. This is an environmentally friendly product range that is being produced from biomass.

The EOC Group was invited to join this project thanks to our connections with several academics. Our role is to screen the

different products in a number of guide formulations to give feedback on their performance so we can advise our partners about which modifications would benefit the performance. In exchange for giving expertise and assistance with the development of the product range, EOC Group stays abreast of the latest advances in products and processes and has the opportunity to licence this technology at a later date.

Our partners in this project include the *University of Ghent, Fraunhofer Institute Germany, Croda, Evonik* and *Inbiose*.

If successful, these projects would allow EOC Group to enter the field of biosurfactants as well as introduce biofermentation process technology into the company. This innovation will impact several stakeholders:

- **Customers** - they will be able to use new environmentally friendly surfactants that are made from biomass and use a benign production process;
- **Society** - the ability to use products that have no impact on the global resources and little or no impact on the environment;
- **Environment** - the raw materials used to produce these biosurfactants are natural and do not impact the food chain as they are second generation biomass raw materials.

## INTRODUCING PROTEINS INTO COMPOUNDS AND LATICES

- Compound Division and Latex Division

This project investigated the use of proteins as a component of the binder used in compounds and latices. Most research in this area focuses on the use of lignin and cellulose, but we believe that proteins could offer interesting opportunities for EOC Group. Additionally, the use of biomass such as proteins decreases the use of products coming from oil.

Proteins are naturally occurring products that can come from highly purified production processes or from the side streams of other industries such as the fish or meat industry. In the first phase, protein is chemically bound to the *XSBR* latex, in a 10% introduction. The second phase will see a 10% substitution of the *XSBR* latex in the compound formulation. This fits well with the overall aim of the latex and compound business units to deliver a more sustainable solution for carpet coating.

EOC Group's role was to test the products in the process and the formulations. In the first phase, EOC Group carried out polymerization reactions and evaluated the products' performance in the compounds. EOC Group also carried out upscaling trials of the chemical modifications needed to get the proteins to react during the polymerization.

And in the second phase, EOC Group carried out compatibility and performance testing during the application process.

Our partners are the *University of Ghent* and the *University of Wageningen*. The *University of Ghent* developed the protein modifications required to allow the proteins to react with other monomers. And the *University of Wageningen* selected and modified the proteins that were used as a partial replacement of the *XSBR* binder in the compound formulations.

This is a first step towards delivering environmentally friendly coatings to the carpet industry. We have also investigated 100% bio-based coatings that do not include any *XSBR* in the coating, as well as recyclable and compostable coatings.

Overall, this project has a huge potential impact on sustainability. If we succeed in utilising proteins from waste streams, we will reduce potential pollution sources. And if we succeed in a complete substitution of the *XSBR* coating by a more environmentally friendly alternative, we will reduce our environmental impact by either reusing products (*i.e. by recycling the coating*) or by composting the coating. There is still work to do, but we have made a good first step.

# Communication with stakeholders

As this report shows, achieving this vision requires a lot of different factors, including communication. While communication isn't enough to affect sustainable change on its own, it can change attitudes of stakeholders, convincing them of the importance of new procedures, rules and equipment, and showing them the goals that have already been reached with their support.

## STAKEHOLDERS

Each group of stakeholders plays its own role in assisting EOC Group to meet its sustainability vision. For example, EOC Group management determines the main targets of the vision, while EOC Group personnel implement the necessary changes in order to achieve these goals.

EOC Group stakeholders are:

- EOC Group personnel
- Customers
- Suppliers
- EOC Group owners
- EOC Group management
- Trade Unions
- Media
- Local communities
- Society
- NGOs (*non-governmental organisations*)
- International organisations
- Personnel representatives
- Government (*local, regional and national*)
- Regulators and Authorities
- Industry Associations

## COMMUNICATING WITH STAKEHOLDERS

EOC Group believes that communication is key for the maximum impact of our sustainability initiatives. The type of communication used depends on both the stakeholder and the project.

### Personnel

When communicating with personnel we use a wide range of tools, including: emails, notice boards, intranet, websites, reports, campaigns, relevant literature, training, health and safety notices, performance reviews, meetings with staff representatives, open discussions and the HR platform. Topics are equally broad.

In China we used analytical data in a meeting to show the benefits of reducing excessive water consumption and waste. We used our full communication toolbox in the UK to discuss a selection of sustainability topics, including product safety, compliance with laws and legislation and business performance.

In India we had an open discussion with personnel to explain why we are taking measures to reduce, reuse and recycle water as much as possible. Our personnel also participated in a *Safety Week rally in the Tarapur MICD Industrial Area* to raise awareness of safety across the region.

And in Belgium our certificates formed the basis of our communication with personnel. We used our roadmap, KPI boards, monthly reports and the intranet to keep personnel up to date. This includes the continuous improvement of preventing emissions, reducing spills, reducing energy consumption, correct use of our DMS (*Document Management System*), and SHEQ manual and meetings. Our results in Belgium so far are impressive: energy consumption has been reduced by 10%.

### Local authorities

In China we also communicated with the local authorities and regulators about reducing excessive water consumption and waste. During the meetings, we shared analytical data and details of our production process controls.

### Customers

Communication with customers includes customer satisfaction surveys, customer visits, meetings, reports, test results and evaluations, exhibitions, EOC plant visits, personal discussions, website and general contact by phone and email. Around the world we communicate with our customers on a range of sustainability topics. This includes recycling packaging materials in China, product biodegradability in India, and supply chain, raw materials and sourcing in the UK.

## Suppliers

We communicate frequently with suppliers via reports, review meetings, personal discussions and general contact by phone and email. Topics covered include reducing packaging by using ISO tanks instead of IBCs for bulk orders in China and supplier sustainability, quality and production control in the UK.

## Knowledge institutions and industry associations

Our communication with knowledge institutions and industry associations takes place via meetings, training sessions, website and general contact by phone and email. In the UK we also use our *Green Business Membership* as a further communication channel. The topics we discuss cover every aspect of sustainability, for example, in the UK this includes business and sustainability strategy, environmental awareness training, legal updates and aspects and impact register.

## EOC Management

Our internal communication with EOC Management takes different formats depending on the timescale being discussed. This ranges from the EOC intranet for weekly updates, reports on a monthly basis and roadmaps annually. Topics covered include new sustainability initiatives specific projects at EOC locations and elsewhere, e.g. the water project in Bolivia, the placing of the bee hotel, thick sweater day in Belgium and group sports activities.

## SUSTAINABILITY REPORTING

Our *Global Sustainability Summary Report* is another form of communication with our stakeholders. We distributed the report to all interested stakeholders, including personnel, customers, suppliers and governmental agencies, and encouraged feedback.

## LOCAL AWARENESS CAMPAIGNS

In the reporting year, EOC Group undertook several local campaigns to increase awareness of our sustainability actions to different stakeholders.

In Portugal we schedule talks from a safety and environmental consultant every two weeks. These talks cover a range of safety, housekeeping, environmental and legal issues to ensure all personnel are aware of different aspects of sustainability.

Several small campaigns in Belgium have focused on heating the warehouses in Oudenaarde, keeping doors in the production plant closed as much as possible and introducing the *Kaizen* system.

In the UK we launched a customer satisfaction survey with sustainability as the main topic. The survey aimed to increase awareness of sustainability and of our *Global Sustainability Summary Report*. Our next step is to measure and monitor customer feedback and for our account managers to individually

contact any of our customers who did not respond to the survey or skipped that section. We want to show our customers how important sustainability is to us and to provide copies of the full report as required.

## KNOWLEDGE INSTITUTIONS AND INDUSTRY ASSOCIATIONS

We work with a number of knowledge institutions and industry associations around the world. These connections expand our expertise and inspire future projects. At the request of several of our customers, we joined *Ecovadis* in Belgium. *Ecovadis* provides reliable *Corporate Social Responsibility (CSR)* ratings and scorecards based on 21 indicators based on company audits. Thanks to our rating and *Silver Ecovadis Medal*, we have increased sales as our good rating reflects positively on our customers.

In India we are a member of the *Tarapur Industries Manufacturers Association (TIMA)*. Via the *TIMA* we keep abreast of problems, solutions and activities of other association members and have a venue to share our issues. *TIMA* represents its members to local authorities where there are common industry problems that need to be solved.

In the UK, we are a member of the *Greater Manchester Chamber of Commerce (GMCC)*. The *GMCC* offers sector-based membership services and networking opportunities, including the regular business forums. This enables us to maintain and enhance our business reputation within the wider business community.

## SUSTAINABLE AWARDS AND ACHIEVEMENTS

Awards and achievements are the result of hard work by all EOC Group personnel. During the reporting period, some EOC Group plants and subsidiaries were recognised for our sustainability activities.

In India we were awarded the *Co-Creating Value Award* as an emerging key supplier by the *Paper and Speciality Boards Limited (Bhadrachalam)*. EOC Group has been consistently supplying them with our paper coating binder for 8 years. The award was in recognition of our quality, service and value for money.

In Belgium we were awarded the *VOKA (Vlaams netwerk van Ondernemingen - Flemish Chamber of Commerce) Sustainability Charter* in June 2016 after a positive *VOKA* sustainability audit.

In the UK, we were awarded the *Certificate of Registration* from the *British Standards Institute* for operating an Environmental Management System which complies with the requirements of *ISO 14001:2004* for the development and manufacture of adhesives and latex compounds. We also received a *Healthy Workplace Award* from *Healthy Performance*, a health and wellbeing consultancy. This carries out personnel health checks to provide a company health report (*using anonymised data*) to show areas to focus on when implementing a health and wellbeing strategy. Ultimately, a healthier workplace will reduce absenteeism and increase staff engagement.

# Economic Development



## ENABLING SUSTAINABLE DEVELOPMENT AND COMMERCE

**Sustainable development doesn't mean that we need to overlook economic development, especially as our economic health is vital to the continuation of our business. Nor does sustainable development mean reducing our quality of life. That's why we strive to find better ways of doing things that incorporate both good business sense and sustainability.**

Sustainability is becoming increasingly important for our customers. From discussions about greenhouse gas (GHG) emissions, water management and product responsibility to human rights, child labour and gender equality, we share our expertise and our values to create a more sustainable world for us all.

### SUSTAINABILITY IN GENERAL

One of our customers in Poland supplies a global furniture retail and manufacturing chain which is extremely demanding in terms of sustainability. They also require all their partners in the supply chain to implement the same policies. Their main concern was human rights and child labour. As EOC Group has the same attitudes towards these points, we have happily signed documents to confirm this.

#### Adhesives Division

A customer in Thailand uses our adhesives to produce boxes. Previously they were using a solvent based product along the edges of boxes that were then used for electronic parts, toys

and office supplies. Unfortunately, the solvent based adhesive emitted a slight odour, which is not good for human health.

EOC Group then introduced a water-based and environmentally friendly adhesive that would eliminate these health concerns. In response to the customer's concerns that the water-based adhesive wouldn't dry fast enough for their coating line, we developed a fast-drying water-based adhesive. After extensive testing, this was approved by the customer. An additional bonus is the cost of the fast-drying water-based adhesive is slightly lower than the original solvent-based one, resulting in a very happy customer.

#### Surfactants Division

Retailers are starting to ask private label manufacturers of household and personal care products about the sustainable sourcing of palm oil, palm kernel oil and their derivatives. Some private label manufacturers have a *Roundtable for Sustainable Palm Oil (RSPO)* certification for their manufacturing sites. This means that EOC Group has been asked for detailed information about the amount of palm oil, palm kernel oil

and their derivatives used in materials that we supply.

Customers have also enquired about possible supply *RSPO* certified surfactants, but have yet to order due to the price premium and the fact it is not yet legally required. However, this legal obligation will change shortly for any product that wishes to have the *EU EcoLabel* or *COSMOS*.

EOC Group has answered all questions relating to palm oil, palm kernel oil and their derivatives in a transparent and open way. We are also doing the preparation work required for *RSPO* certification of our production sites, which we hope to achieve in the next reporting period.

Also in Belgium, a multinational customer audited EOC Group's Evergem production plant related to the production of secondary surfactants used in their household products. One of the main points of the audit concerned monitoring water quality. This is for two reasons. Firstly, water is the most important processing ingredient of several surfactants produced at our Evergem plant. And secondly, EOC Group is planning to switch our demineralized water source from city water to ground water during the next reporting period.

A new customer operating in the Chinese personal care market was looking for a betaine foaming product that gives low residue

monomers for a better quality product. Previously they were using an expensive solution from a Japanese company. After testing our product from our Shanghai plant, viewing our recognised certifications and discussing our sustainability programme, they decided to change their supplier.

A company in Thailand who produces paints for residential usage came to us for environmentally friendly raw materials. Their products have low odour, are well washable and a good alkaline resistance. For exterior surfaces, they also reflect heat, ensuring the interior of the house remains cool so the home owners don't need to use air conditioning and fans as often. This indirectly helps the environment as there is less energy consumption which saves the home owner money. The company was impressed with our *ISO* certification, sustainability report and onsite sustainability efforts so decided to work with a range of our products that are APEO-free, have very low VOC and have a good performance consistency.

In China, a natural leather coating company was previously using a sulfosuccinate-based soap from Germany. After a series of discussions about our products, *ISO 9001*, *ISO 14001* and *GMP* certifications and sustainability programme, the company agreed to test our surfactants. Thanks to the quality and availability of our products and our shortened lead time, we became their approved supplier.



## SOLVING OUR CUSTOMERS' SUSTAINABILITY ISSUES

Part of our commercial sustainability strategy is listening to clients to discover their needs and concerns, so we can use our expertise to find a solution.

In this reporting year, we have worked with a large number of our customers to find solutions to their sustainability, innovation and expertise questions.

### GENERAL SUSTAINABILITY ISSUES

A packaging company in Poland that specialises in honeycomb paper filling, pallets and cardboard angles recently came to us with two general concerns. Firstly, they wanted to minimise their costs related to multi-use packaging and, secondly, they wanted to minimise the generation of waste of water and the cost of its utilisation.

For the first issue, we recommended the installation of a 30 m<sup>3</sup> storage tank for adhesives. This reduced their costs significantly as it eliminated the circulation of multi-use packaging, including the related transport and cleaning costs. Additionally, maintaining a cleaner production area was easier as there were no spillages from the use of multi-use packaging.

We then turned our attention to their second issue. Due to their growing production volumes, the company was unable to use less water to clean their machinery. Nor could they change their cleaning system as several machines need to be cleaned every day. As the quantity of water required couldn't be reduced, EOC Group recommended installing an in-house waste water treatment unit to return clean water to the sewers and minimise the cost of the solid waste coming from the treatment unit.

#### Acrylic issues

One of the leading manufacturers of fibre cement roof tiles in Thailand requested our help to develop cement roof files with a wooden grain appearance. The finished product needed to be durable, easy to clean and non-flammable. It would be cost-efficient when building partition walls because it lasts longer than natural wood, plus it is environmentally friendly as it can replace wood products. EOC Group undertook QUV (*accelerated weathering*) tests and trial production tests with the customer in order to achieve the best performance results. The end result is an acrylic product that gives better adhesive and gloss retention properties compared to their previous acrylic product.

#### Adhesive issues

One of our customers in Poland, a manufacturer of pulp, was investigating ways of improving their cardboard tubes. They wanted to minimise its weight without reducing quality. Based on our experience, we suggested several cardboard types and qualities and performed lab tests to discover the optimal adhesive to use in the production process. During our testing, we discovered how making slight modifications in the tube winding

machine would obtain faster and better bonding between the cardboard. Our suggestions were quickly put into production and have resulted in increased production and efficiency, higher quality and a decrease in production waste.

#### Surfactant issues

Two of our Belgian customers requested help with surfactants. The first is a multinational manufacturer of family, personal and household care products that EOC Group supplies with a secondary surfactant used in dishwashing liquids and hard surface cleaners. The customer wanted to receive a consistent product quality, regardless of the production location and the transit time, so the surfactant could be used immediately on arrival. After an intense collaboration, EOC Group developed two different grades of the same product so that each manufacturing site receives exactly the same quality of surfactant independent of the transit time to the customer's manufacturing site.

The second customer is an innovative developer and manufacturer of personal care products. EOC Group supplies them with several secondary surfactants used in a variety of foaming and cleansing personal care products. The customer wanted to sell a range of products with an *EU EcoLabel*, which requires the sustainable sourcing of palm oil, palm kernel oil and their derivatives. Based on the clear input of all EOC Group raw material suppliers, fully transparent information can be supplied to our customers regarding the presence and sustainable sourcing of palm oil, palm kernel oil and their derivatives.

#### Compound issues

One of our customers in Turkey produces gel foams for furniture. They asked us to work on a special gel foam compound that meets their strict *ISO standards* and doesn't contain any restricted chemicals. After a long R&D procedure, we developed a cost-efficient thermoplastic elastomer (*TPE*) compound for carpet coating that met the customer's requirements.

#### Emulsion issues

A plastics processing and recycling company in Poland was looking for a solution to reduce energy, waste and workload for their non-woven processes. At the time, EOC Group was supplying the customer with an emulsion that needed to be processed further before it could be used to impregnate. Instead of keeping the additional processing at the customer's location, we suggested that it take place at our local facility. While the cost of the fully processed emulsion is slightly higher and production takes a little longer, there are clear advantages for the customer. The customer has reduced the equipment they need to install, maintain, operate and clean as they don't need a mixing tank anymore. This reduces infrastructure costs, eliminates related energy consumption and maintenance costs, eliminates the need for water to clean it and the costs for treating the waste water. The workload is reduced as there is no need to operate and clean the mixing tank. And there is no need to purchase, store and use additional doses of biocides as this is now part of the additional processing which is done by EOC Group.

BEING SUSTAINABLE IS A CONTINUOUS PROCESS THAT WE, AS A COMPANY, CANNOT DO ALONE. WE WORK CLOSELY WITH OUR CUSTOMERS AROUND THE WORLD TO ACHIEVE BOTH OUR AND THEIR SUSTAINABILITY GOALS.



In Thailand, we have partnered with a company that produces paint for the Myanmar market. After our suggestion to use our acrylic and styrene acrylic products that emphasise our sustainability practices, the company has decided to adopt some sustainability processes at their Myanmar plant. **Together, we have worked on projects concerning GHG emissions, environmental responsibility, waste treatment and water management.**



Another of our Thai customers uses EOC Group's styrene acrylic products for waterproofing for the construction industry. The company recognises the importance of sustainability and has discussed **methods for recycling and reducing waste.**



A mattress foam manufacturer in China was looking for a foam with good stability. They tested our normal soap product, but the colour wasn't suitable for mattress foam as it needs to be very white. After a series of **lab trials and product improvement**, we developed a white soap product which met all their requirements. The company was also interested in our **sustainability policy.**



A baby products and personal care company in China was looking for a betaine product for a concentrated baby washing product. We suggested a high active betaine surfactant product that has a **good quality performance.** After a visit to our plant and discussions about our **ISO certifications, GMP plant practice and sustainability policy**, they decided to use our products in their high quality baby washing products. The company was also interested in **product responsibility, GHG emissions and biodegradable products.**



In Belgium we have been working with several customers who produce hand dishwashing liquids. The customers were looking for increased performance without increasing the dosage of surfactants for a **cost-efficient and environmentally friendly product.** Those who used our combination of mild co-surfactants show a synergistic effect in dishwashing liquid performance.

# Economic Development



## FACILITATING PRODUCTION OF GOODS IN AREAS WHERE IT CREATES MOST VALUE FOR THE PLANET

EOC Group focuses on developing safe and efficient production processes that are as sustainable as possible. This is a continuous process that involves all of our personnel. Current production initiatives include improving traceability, monitoring product quality, segregating non-conforming materials and products, and waste management.

### TRANSPARENCY AND TRACEABILITY

The continuing focus on health and safety scares in the news highlights the importance of transparency and traceability. EOC Group works hard to ensure the traceability of all our raw materials and the transparency and labelling of our finished products to obtain the highest possible quality throughout their lifecycle, including for our non-conforming materials and products.

Our product lifecycle start with a discussion with the customers. Based on this, a technical activity is created and sent to the Research and Development department. We develop trial samples which are tested by the customer. After approval, the product goes into standard production.

Our traceability efforts are part of our *ISO 9001* certification. This starts with our incoming raw materials. Each raw material is given a lot number on arrival which is logged in our database. This allows us to trace which raw materials were used in each production batch and where they came from.

Traceability during and after production is also followed-up. For example, in China, we label all products with their production batch number, production date and retest date before entering all details into our database. Samples from every batch are kept for 6 months, with non-conforming products being stored in a separate designated area away from conforming products.

### MONITORING PRODUCT QUALITY

Our traceability procedures help our efforts to maintain our high quality. Our database records production batch numbers, recipes, test results, production dates, retest dates, etc. Only after approval by our Quality Control department is a product allowed to be transported to a customer. Additional samples are taken for testing from each batch before it leaves our premises. Any non-conformity discovered by our Quality Control department is discussed during quality meetings to find a solution and to eliminate the problem in the future.

We also have added quality to our KPIs for our Belgian premises to highlight its importance. In the UK, we have a separate

reporting module for non-conformities. To have full visibility of these issues, the module includes an approval structure, accountability trails, root cause analysis and preventative measures for each finding. This gives us an overview of our overall quality, allowing us to see trends clearly and follow up where required to improve our product quality.

In Turkey we recently switched to SAP, which has allowed us to clearly define all production recipes, instructions and quality control inspections. Monitoring follows strict procedures to enable us to standardise products and determine non-conformities.

One potential issue that we are aware of and work hard to avoid is product contamination. As the same equipment is used for batches of multiple products, we take care to clean it out fully between each batch. In China, we have introduced two checks to ensure the reactor is cleaned properly between batches, eliminating the chance of a bad reaction during production. Firstly, personnel undertake a visual check of the inside of the reactor during the rinsing cycle, and then, personnel observe the condensate liquid during the last steaming cycle until it is clear before they stop the washing.

We have also optimised our alarm system in Belgium. Previously, the alarm system was linked to a continuous evaluation of the temperature and pressure trending of the reactors. However, this resulted in too many alarms which meant they were often seen as a nuisance rather than treated as important. The new system includes an evaluation of the type of alarm (*notification, alert, high alarm*), so personnel can correctly interpret the urgency of the alarm and respond accordingly.

#### NON-CONFORMING MATERIALS AND PRODUCTS

We perform a number of tests on every batch we produce to guarantee the conformity and quality of our products. However, despite our best intentions, we sometimes have non-conforming materials and products. These are treated according to our strict protocols, including being labelled with red non-conform labels and placed in a separate zone in our warehouse. This eliminates the risk of cross-contamination or that the wrong batch is transported to our customers.

#### WASTE MANAGEMENT

In the previous reporting year, we launched many initiatives to improve our waste management processes. These initiatives have continued into the current reporting year, along with a series of new projects at our locations around the world.

We have re-segregated our site waste in the UK. The new waste disposal system is a clearly defined system with clear instructions and signage for all personnel and contractors involved in waste disposal onsite. Waste is correctly disposed of in the correct container as monitored through our regular housekeeping checks, internal audits and external audits. This will make it easier for us to dispose of our waste according to environmental legislation.

EOC Group in Turkey reports all waste to the *Ministry of the Environment* as part of the annual waste reporting. This includes the amount of waste, the type of waste and the batch code. The purpose of the waste reporting is to make companies aware of the amount of waste they're producing and to ensure they follow the legislation to remove the waste properly. And in the Netherlands, we improved our plastic waste recycling by implementing new procedures to separate plastics and big bags from the normal waste flow.

We implemented a new initiative to reduce waste water and solid waste for our compound and adhesive facilities in China. We aim to further reduce our waste water generation rate from 5% and our solid waste generation rate from 0.73% in 2016. As well as reducing our impact on the environment, this will also reduce costs.

In India we have introduced new procedures for the treatment of our waste and water and discharge waste water from the ethylene propylene terpolymer (*EPT*) plants to comply with government legislation. The aim of the legislation is to reduce the impact of waste water on our environment, including our soil, air and water. We plan to take this a step further, and we are working towards zero discharge by recycling all waste water. Currently, the new procedures have been implemented at the EPT plant and the results are being regularly monitored by our in-house team and an external party. While we are meeting the new legislation, we still have work to do to achieve our goal of zero discharge.

We have also reduced product batch cycle times thanks to continuous improvements at the production level. These improvements include: improved communication between

departments; installation of a new cooling tower and high capacity storage tanks for finished goods and raw materials; and new procedures to ensure effective follow-up with the maintenance and engineering departments. These changes have resulted in no personnel injuries in over two years; reduction of water waste; and reduced batch times reducing our energy and water consumption.

Another project in India is the recycling of water that has been flushed through our reactor. The aim of the project is to reduce waste water generation while increasing productivity. Instead of disposing of waste water that has been used to flush our reactor, we are storing it to reuse in the next production batch instead of fresh water. Testing has shown that our product quality remains consistently high, and this process reduces both the amount of fresh water that we use and the waste water that we generate. The three projects in India both demonstrate how EOC Group likes to reduce costs, limit environmental impact and supply quality products.

We also focused on water consumption in Portugal. Our aim was to reduce the use of municipality water by recycling more cleaning water. By controlling water consumption across our site, we reduced our use of municipality water by 3% in a year. This project will continue into the next reporting year.

In Belgium we have tightened up the controls for all water discharges into the canal by our premises. This will reduce the risk of waste water entering the environment, as well as meeting new government legislation. We have also reduced our use of lead boric acid in Belgium. As well as the economic savings, it also means there is less need for our personnel to handle the acid and a lower environmental impact.

Another new scheme in Belgium is based on the Six Sigma principles, and it aims to economically and ecologically optimise our waste management system. As well as small changes, like dedicated waste disposal recipients, the scheme looked at the bigger picture to encourage us to sort and recycle more at all levels of our operation.

Coagulate is waste that is filtered out of the produced liquid latex. This is collected in waste containers which are equipped with a type of sieve cloth to allow the liquid to be drained to our recovery tank. We implemented a project in Belgium to reduce the amount of coagulate that is sent off-site to an external waste treatment centre. The project had two phases. In the first phase we tested other types of cloths to extract more liquid from the coagulate so only the real waste is treated. And in the second

phase we checked ways of improving the filtration process itself so less liquid flows into the waste containers. We have set a KPI based on the amount of waste as a percentage of the total produced tonnage to measure how well this initiative works.

We are also working to reduce polymer scrap in Belgium. Previously, internal waste streams with significant solid content were sent to the internal waste water treatment centre. Most of this waste stream comes from the sieving area where the drainage is connected to the sewer line. By installing a second line, the waste stream is diverted to a recovery tank so that we can recover and reuse viable product. The implementation of this project will be finished in the next reporting period, but we expect it will reduce our waste and waste transports, reducing our operating costs and reducing our environmental impact.

*In 2015, EOC Belgium commissioned the biological water treatment near their site in Oudenaarde. In the same period, a water purification plant was also put into use at the EOC Belgium Latex Division site in Evergem. The investment in own biological water treatment systems is an important step for EOC Belgium in the area of sustainable water management and its direct and indirect impact. Water purification is necessary to keep the surface water clean and to ensure the quality of our watercourses. An important realisation for EOC Group, the environment and society. Below picture of the clarifier of the biological water treatment of EOC Belgium in Oudenaarde.*



WE REALISE THAT WE CAN'T REACH OUR SUSTAINABILITY GOALS ON OUR OWN. WE ARE HAPPY TO BE ABLE TO RELY ON THE SUPPORT OF A NUMBER OF KEY EXTERNAL PARTNERS AROUND THE WORLD.



In Portugal and in Turkey we work with two **safety and environmental consulting companies**, that ensure our compliance with local legislation, industry regulations and EOC Group policies thanks to regular visits and audits.



In India we work with the Tarapur Management Association to organise the annual Safety Week for companies in our region. As well as raising awareness of safety amongst personnel in the area, the association also acts as an **intermediator, representing local industry interests to the Indian government and local authorities**.



In India we also work with MPCB/CPCB, an **environmental waste management group**, that focuses on controlling waste water and its treatment. With their assistance, EOC Group has implemented several initiatives to improve the water quality of the discharge effluent. They have also given regular safety and health awareness seminars to all personnel.



We work with SCIP SITA Waste Services Co., a **certified waste solid treatment centre**, in China to ensure all our waste solids are treated according to all relevant legislation and regulations.



In Belgium we are working with Tholu Holland, a **packaging supplier**, to find ways of reducing packaging waste. One new initiative that was implemented in this reporting year is to stop replacing the full IBC, and only replace the internal bottle so that the cage and pallet are reused. This is both economically and environmentally beneficial.



We have installed a Tulip burner from Europem, a **leading supplier of Environmental Payback Projects**, to reduce consumption of natural gas at one of our Belgian plants, and investigated the potential of integrating a cogeneration unit. Initial studies suggest that a cogeneration unit would generate approximately 75% of the electrical power we would need, plus it would produce the thermal energy necessary for heating the process water. We expect the cogeneration unit to be installed in the next reporting year with start-up in the year after.

# Economic Development



DRIVE IMPLEMENTATION OF RESPONSIBLE PROCUREMENT WITH THE PURPOSE OF SETTING, COMMUNICATING AND ENFORCING BASELINE STANDARDS FOR ALL SUPPLIERS.

Suppliers are an important element of EOC Group's value chain. Together with them, we create value and minimise risks to ensure a smooth and transparent supply chain. Our suppliers' expertise, professional standards and sustainability commitments reflect on us, which is why we maintain a rigorous selection process, continue to monitor performance with regular audits and perform supplier assessments as necessary.

The environmental and professional standards of EOC Group's suppliers reflect on the company, that's why EOC Group has a rigorous selection process and continues to monitor performance.

## EOC GROUP GLOBAL SUPPLY CHAIN MANAGEMENT

As a responsible manufacturer, EOC Group requires all suppliers to meet EOC Group environmental standards as well as all relevant regulations. The most important global suppliers are managed in cooperation with EOC Einkauf, the company's procurement office.

EOC Einkauf negotiates price and delivery terms as well as ensuring compliance with the company's high quality standards. The EOC Group's purchase centre ensures that the most important global suppliers meet these standards. In general, EOC Group tends to avoid single sourcing where possible,

preferring to work with a good mix of manufacturers and trading companies. Some EOC Group locations around the world have additional specific values that they look for. However, all focus on the same elements: quality, reliability, value for money, support and flexibility. These elements are assessed through a number of tools including audits, questionnaires, insurance details, risk assessments and general market reports.

## THE UK

In addition to the values that EOC Group requires, in the UK we also investigate accreditation, reputation, location, professionalism, speed and efficiency when evaluating suppliers.

When looking for temporary staff, we work with Time Recruitment, a temporary staff recruitment agency. Skills, knowledge, experience, qualifications are all important when

searching for new personnel. In the case of recruiting a temporary driver, this means that Time Recruitment checks that all candidates have the relevant licences (*e.g. digi-tacos and CPC cards*) to be legally qualified to do the job.

While temporary staff work directly for the agency, they are carrying out activities on our behalf, so we audited *Time Recruitment* to ensure that all driver qualifications had been fully checked before they started their contracts with the EOC Group. After a group of Class 1 Drivers started working for us via *Time Recruitment*, we requested a copy of the candidates' internal audit trail to ensure the paperwork had followed-up correctly. The results of the audit showed that all of the Class 1 Drivers were legally allowed to work in the UK and were qualified to do the job required.

One of our transport suppliers contracted to do multi-drop deliveries of our products throughout the UK is *AK Worthington*. They were chosen thanks to their accreditation and experience in delivering our type of product, and they have a good reputation within the industry.

Our audits often focus on the supplier itself, however, sometimes we look at how the supplier is perceived by our customers. In the case of *AK Worthington*, we wanted to find out how our customers rated the service offered by *AK Worthington*. Our audit showed that *AK Worthington's* drivers portrayed a positive image on behalf of EOC Group.

## THAILAND

EOC Groups looks for suppliers in Thailand who also offer us a comprehensive and accessible service, which is why we chose to work with *Mitsui & Co. (Thailand) Ltd.*, a supplier of monomers. With its worldwide operations, *Mitsui & Co.*

understands the hierarchy of working for a local premises in a global organisation.

Three of our recent audits were with *LG Chemicals, Idemitsu Malaysia* and *VIV Interchem Co., Ltd.* *LG Chemicals*, based in South Korea, supplies us with high quality butyl acrylate and 2-ethyl hexyl. Their last audit was positive for both parties. *Idemitsu Malaysia* supplies us with styrene monomer from their plant in Pasir Gudang, Malaysia. During the positive audit we checked their facility, production plant and loading point for shipments to Thailand. We also came to an agreement getting supplies from Malaysia in ISO tanks.

Unfortunately, not all audit results are positive. One supplier which supplied us with monomer raw materials was negative. When EOC Group experienced delays from the supplier, we followed up with them to try and find a workable solution. By the end of the reporting year, the issue had been resolved.

## CHINA

In China, our suppliers include the *Inner Mongolia Shuangxin environment-friendly material Co. Ltd. in Inner Mongolia, Zhejiang Hongyu Bio-Technology Co. Ltd. in Quzhou*, and *Changzhou Lingda Chemical Co. Ltd. in Changzhou*. They were chosen based on their location, the quality of their products and the value for money. We recently carried out audits at all three locations. The *Inner Mongolia Shuangxin environment-friendly Co. Ltd.* supplies us with *PVOH*, one of the main raw materials used by our Adhesive Division. During the audit a number of issues were discussed, including delivery schedules, pricing and volumes. Based on these discussions, EOC Group decided to increase volumes from this supplier.

The audit at *Zhejiang Hongyu Bio-Technology Co. Ltd.* was in

follow-up to a negative audit performed earlier in the reporting year. During the first audit, the suitability of their plant and equipment was checked to see if it was of high enough standard to supply us with quality *XSBR* latex. Based on our recommendations, they installed newer machinery, including a stripper and condenser equipment, and the quality of their tolling had significantly improved.

The third company, *Changzhou Lingda Chemical Co. Ltd.*, also produced *XSBR* latex for the EOC Group in China. Unfortunately, the company wasn't delivering consistent quality raw materials. In addition the local authority issued an environmental report stating they wanted to stop production due to local residents complaining about the production smells. After discussions between all stakeholders it was decided to end our working relationship.

## INDIA

Quality and reliability are utmost important for EOC Group in India. This is reflected in two recent audits with *Centpro Engineering and Supreme Petrochem*. *Centpro Engineering*, based in Pune, Maharashtra, India, manufacturers and supplies stainless steel storage tanks. The audit focused on *Centpro Engineering's* quality standards and infrastructure to ensure that they would be able to deliver high quality goods on schedule, so that we wouldn't face production loss due to delays. The results of the audit were positive and we look forward to a productive future working relationship. *Supreme Petrochem* supplies styrene monomer from their production plant in Mumbai, India. Due to a number of irregularities that could potentially lead to disruptions in our production schedules, we undertook a full audit of their facilities. The full results of this audit are still pending.

G4-EC1

## Economic Performance Data 2011 - 2016

Within a business case where the top-line was driven by the evolution of raw material prices, a cost savings plan was realized through, among others, Operational Excellence and CPM. Figures from the Legal Consolidation Annual Report.

KEY DATA [in million €]		2011	2012	2013	2014	2015	2016
Sales revenue	in million €	300	306	283	293	275	266
Operation costs	in million €	33.5	37.5	38.7	37.8	40.4	39.7
Employee wages and benefits	in million €	27.1	25.8	29.2	31.6	32.5	32.5
EBITDA	in million €	15.7	17.7	15.8	15.3	16.7	17.3
EBIT	in million €	8.7	11.2	9.1	8.1	8.7	10.5



## Social Progress

GLOBAL PERSPECTIVE CONSIDERS THE INDIVIDUAL, THE GROUP, THE ORGANISATION, AND INTER-ORGANISATIONAL SOCIAL PROCESSES.

People are our most valuable resource. Only with the strength of our personnel behind us, can we achieve our sustainability goals for a better future for us all. That's why social progress is such an important aspect of our sustainability policy. Social progress covers all aspects of our social contracts with our personnel, from health monitoring and performance evaluations to training and development.

In the current reporting period, we have introduced a wide range of new initiatives that aim to support and motivate our personnel as we work together to achieve our sustainable goals.

### NEW HUMAN RESOURCES INITIATIVES

Working as a team is a vital part of our daily processes, so it is an important skill to encourage within our workplace. In China and Thailand we introduced team building initiatives that allow our personnel to see each other in a new light, so they see how they can effectively work together as a team, while still enjoying the different strengths of the team members. Team building

also builds other skills, such as communication, problem-solving, conflict resolution and planning. High performing teams work together seamlessly in any role from customer-facing to management, which improves the outlook of the EOC Group.

Team building initiatives are not just limited to building relationships internally. In Thailand, we participated in the *Rayong Industrial Park Games* along with other companies in the area. In addition to networking opportunities, we also had the chance to build and strengthen our relationship with our local community.

We see health monitoring as part of our duty of care to our personnel, to encourage their health and wellbeing to the highest degree possible. In fact, healthy personnel is beneficial to any company as it reduces absenteeism and improves productivity, staff morale and personnel engagement. In response to this, we offer our personnel free health checks ups at regular intervals. In India, for example, they are compulsory every year.



In the UK, we work with *Healthy Performance Ltd.* to offer our personnel a full physical assessment. This looks at blood pressure, lung capacity, reactions, eye sight, hearing, BMI, weight loss, ongoing medical issues and mental health, including anxiety and depression. While EOC Group receives an anonymous version of these results, the personnel receive the results of their physical assessment, along with ideas of how to improve their wellness and wellbeing. If any underlying health issues are discovered, the person will be better informed so they can seek relevant medical help as required. Additionally, we will be able to support them in any way possible if necessary.

While Personal Protective Equipment (*PPE*) is available at all our locations, not all personnel find it comfortable or easy to use. In India, for example, personnel find it cumbersome, especially during the warm summer months. To increase onsite safety, we made the use of PPE compulsory for everyone that enters the manufacturing area. This small change has dramatically increased the use of PPE across the site, helping to reduce the risk of incidents, increasing awareness of safe working habits and improving the wellbeing of all personnel.

In Belgium we implemented three new initiatives to help our personnel. In Evergem, we noticed that there is a difference in the level of knowledge and performance across our maintenance technicians. We introduced defined job categories with wage levels and then scaled our personnel based on knowledge tests and performance assessments. The results were a fair pay policy, with clear training options and growth potential so they are able to work on a wider range of maintenance tasks. The fair pay policy will motivate our personnel to improve their knowledge and skills in order to climb the hierarchy of job categories and wage levels. And, as they improve their knowledge and skills, the maintenance department will improve the quality and speed of their interventions and long-term solutions.

We introduced flexible working hours for our day workers in Belgium. In order to help personnel improve their work-life balance, we now allow our day workers to choose their start and end times and the number of hours they work per week.

The third initiative we introduced in Belgium is coaching of new personnel. By providing a coach to anyone who starts to lead a team or department, we are helping them to learn more about their new job quickly and easily. Improved leadership benefits the entire team and department and has a positive influence on personnel morale.

#### GENDER EQUALITY

Overall, the chemical industry attracts more male applicants than female, and that trend continues at EOC Group. We take gender equality seriously and work to find the best candidate for each role, regardless of their gender.

In Thailand, for example, we have increased the number of women in leadership roles by using female personality traits to promote these roles. Female leadership skills are strongly correlated to organisational success factors including customer satisfaction, employee engagement, profitability, taking the initiative, integrity, honesty, collaboration and team work.

#### TRAINING AND EDUCATION

Our personnel are important to maintaining EOC Group's successful sustainability programmes. We reflect this importance in the range of training opportunities we offer our personnel so they can live up to their potential. Some of the different types of training that we offer are: transport, being safe at work, handling chemicals and general environmental training.

#### Transport training

We have launched e-learning modules to improve the driving skills of all personnel in Belgium by highlighting risky driving practices to create a safe attitude. One module is general, and the other focuses on the needs of our logistics team. All new personnel follow this training.

In the UK, we send personnel to follow a Class 1 driving course so they are qualified to drive HGV (*heavy goods vehicle*) trucks. The course consists of lessons with an instructor and home learning in order to pass a series of practical and theoretical tests. This course is followed up with Digi-Taco, CPC (*Certificate of Professional Competence*) registrations and ADR (*Accord Dangereux Routier; International Carriage of Dangerous Goods by Road*) related information, so the drivers' knowledge and skills remain fresh.

Every five years all forklift drivers in the Netherlands refresh their knowledge and skills with a practical onsite training course given by a driving instructor. Every participant receives a certificate when they complete and pass the course. The safety messages discussed in the course are repeated on posters around the production facility and in toolbox sessions.

#### Being safe at work

In Belgium, we offer a specific training course about how to safely lift heavy objects. All personnel who regularly lift and move heavy objects follow the e-training course every five years. The course explains how to minimise the risk of back injuries by lifting objects correctly.

In Thailand, we work with a local partner to offer a course about working in confined areas to all production, maintenance and

safety personnel. Combining both theoretical and practical elements, the course covers a range of topics including recognition of potential hazards, safety laws, first aid, basic firefighting techniques, and evaluation and control procedures for potential hazards, set-up, use and limitations of emergency equipment, ventilation equipment and PPE. The training is compulsory for all new personnel. Existing personnel need to follow the course when the legal situation changes and for regular reviews. The goal of the course is to eliminate accidents at work.

#### Handling chemicals

As a chemical company, we understand the risks involved if our raw materials or products are incorrectly handled. For this reason we have training courses, safety regulations and internal rules to improve safety awareness when handling chemicals.

In China we organise a training course about handling dangerous chemicals, along with the latest legal and safety regulations. All of our personnel follow this course every year, and are tested on the contents. And in Portugal, we send all personnel on a training course every six months to ensure their knowledge of how to handle dangerous chemicals is up-to-date and fresh.

#### General environmental training

Reducing our environmental impact is a goal that we all need to work towards together. With this in mind, we recently introduced *Environmental Awareness Training* in the UK. Groundwork, an external partner, developed a training programme to show how small actions by individuals can have a positive impact on the environment. Personnel always have the latest information on findings, legislation, impacts, incentives, idea sharing and local initiatives as they follow the course annually.

REACHING SUSTAINABILITY GOALS IS A TEAM EFFORT, INTERNALLY AND EXTERNALLY. WE CAN RELY ON THE EXPERTISE AND DEDICATION OF A NUMBER OF KEY EXTERNAL PARTNERS.



We work with a number of **external partners** in order to achieve the best possible results for our social progress objectives. This includes **training schools, health and wellness organisations and safety consultants**.



In Belgium, we work with Securex Health Coach, a **Human Resources specialist** that delivers a range of Human Resources and health and safety related services. With Securex's assistance, we plan prevention and protection investments that benefit our personnel.



And in the Netherlands, we work with Zorg van de Zaak, a **network of company care professionals**. Zorg van de Zaak helps with our specific health issues, including absenteeism, company health programmes and the company doctor.

G4-LA1

## Social Performance Data 2011 - 2016

### WORKFORCE BY EMPLOYEE TYPE

	2011	2012	2013	2014	2015	2016
Total workforce	583	587	636	665	677	680
Full time employees	FTE 565	573	624	653	663	668
Part time employees	PTE 18	14	12	12	14	12

### WORKFORCE BY GENDER

	2011	2012	2013	2014	2015	2016
Men	473	476	525	557	571	574
Women	110	111	111	108	106	106

### WORKFORCE BY AGE GROUP

	2011	2012	2013	2014	2015	2016
Age 18-24	34	28	28	35	33	30
Age 25-34	196	212	238	219	218	212
Age 35-44	205	184	192	210	211	211
Age 45-54	103	118	134	159	165	171
Age 55-64	41	43	41	38	47	52
65 and older	4	2	3	4	3	4

### NUMBER OF EMPLOYEES IN GOVERNANCE BODIES

	2011	2012	2013	2014	2015	2016
Total number of employees in governance bodies	41	42	40	42	40	43
<b>BY GENDER</b>						
Men	-	-	-	25	23	27
Women	-	-	-	4	4	3
<b>BY AGE</b>						
Age 18-24	-	-	-	1	0	0
Age 25-34	-	-	-	7	7	7
Age 35-44	-	-	-	20	18	17
Age 45-54	-	-	-	12	13	16
Age 55-64	-	-	-	1	2	4
65 and older	-	-	-	1	0	0



## Social Progress

SAFETY, HEALTH, HYGIENE, RISK ASSESSMENT, PREVENTING ACCIDENTS: ALL MATTERS CONCERNING THE INDIVIDUAL AND THE GLOBAL ORGANISATION.

Our strength comes from our people: our personnel and the community around us. We take their safety seriously, working hard to protect them from the potential hazards of our business. We regularly control and assess our handling of hazardous substances, carry out safety risk assessments on our daily activities and implement procedures to minimise potential health, safety and hygiene risks.

We are **constantly assessing the safety of our personnel** around hazardous substances and making the necessary changes to procedures and our premises to reflect our concerns.

### ASSESSING THE USE OF HAZARDOUS SUBSTANCES

Two examples of changes to our premises is the installation of new equipment in China and changes to our storage facilities in India. In China, we noticed that dust was flying into our adhesive product during the production process. To protect our personnel from the airborne dust, and to maintain a consistently high quality product, we have invested in a new

dust-removing system. And in India, we upgraded our storage facility and storage licences to reflect our use of styrene, a petroleum, class B flammable liquid, which is one of our main raw materials. We are now reviewing the other raw materials we use to ensure they are all stored according to their class.

In the UK we undertook a COSHH (*Control of Substances Hazardous to Health*) assessment to review and set up new safety procedures for the handling of Bronopol, a flammable substance when solid. We will repeat the COSHH assessment every 12 months to ensure that all procedures are still being followed.

And in Thailand, we recently received governmental approval for the disposal of empty monomer drum, raw material pails and production waste. The task was carried out by a third party contractor that has the correct licences to handle these types of materials.



## RISK ASSESSMENTS

We regularly perform health, safety and hygiene risk assessments to ensure our procedures comply with all relevant legislation and that we are following these procedures correctly.

In the Netherlands, we have been working with the local regulatory body to produce new data sheets for all hazardous and non-conforming substances. The data sheets include information such as maximum exposure levels and what should be done in case of an incident. We plan to update the data sheets every year. Additionally, we are also working to reduce the maximum exposure levels to reduce risks even further. This means changing raw materials used, developing alternative products and working with raw material suppliers to find substitutes.

We are working on an issue with a volatile organic compound in China. The compound poses a potential risk to the health of our personnel as well as violates local regulations. We have

implemented a temporary solution until a more permanent solution is approved and can be executed. The local authorities are fully aware of the situation.

In China we store *Isooctanol*, a raw material, in storage tanks before it travels to the reactor via a pipeline. In warm weather, the pressure in the pipeline increases significantly, which can potentially cause the Isooctanol to explode. We adjusted our procedures to empty the pipeline after the raw material has entered the reactor to eliminate the risk.

A structural expert recently evaluated our premises in India to check the load bearing capacity of the existing structure. Based on his advice, we have installed a new reactor.

And in the UK, we undertook a *General Risk Assessment* of the production area and effluent plant. After water is processed by the press, it leaves a clay-like substance behind. These unwanted purities, and it can be slippery if not disposed of properly. During an intensive deep clean of the entire plant,

including the effluent plant, we noticed areas of disrepair in the effluent plant so we carried out a full refurbishment of these areas. To avoid a repeat of this situation, we have implemented a 'Clean as you go' policy for the entire site. This new policy will ensure all work areas are cleaned to the highest standards after every activity to prevent the occurrence of potentials accidents.

We also performed a noise exposure risk assessment in the Netherlands. By measuring the noise levels in the production plant, we were able to make a better risk evaluation of the possible negative health efforts. In response to high noise levels in certain cases, we have introduced special PPE. We will continue to monitor the situation to ensure personnel use the new PPE and that noise levels do not increase.

## PREVENTING ACCIDENTS

In the reporting year we have implemented a number of initiatives to prevent accidents across our premises worldwide. In China, India and the UK, we have new regulations for personal

protective equipment (*PPE*). In China, our personnel informed us that the new type of cloth face mask wasn't working properly. Based on an internal audit, we now provide our personnel with *3M* face masks. In the future, we will determine which face mask is best for use with each powdered raw material.

In India, we noticed that personnel were not using the provided PPE so we decided to raise awareness of the safety implications of not using PPE. Safety posters, training and discussions have helped to increase the usage of PPE across the site.

And in the UK, health checks noticed an increase in sensitivity to natural rubber latex. After a full risk assessment to determine how the substance needs to be handled to prevent further sensitivity, we have implemented new procedures. These new procedures include the compulsory use of PPE at all times when handling the substance and the introduction of a new hand cleansing procedure. Personnel handling natural rubber latex now have to wash their hands before handling the substance, use a barrier cream and wash again afterwards. Personnel also



An example of the health and safety campaign illustrations and posters used in all the EOC Group sites globally.

have weekly checks for sensitivity, and any signs are treated and reported.

We are paying attention to possible spillage of raw materials and finished products with new initiatives implemented in China, India and Turkey. Following an accident in China, we have changed regulations for transporting drums on pallets by forklift truck. In the accident four drums were on a pallet, when one fell, spilling latex over the ground. To prevent a reoccurrence, the new regulations state that if more than two drums are being transported by forklift, they have to be wrapped in tape. In India, spillage was noticed during packaging of a finished product. After cleaning up the spillage, we implemented training sessions to improve the packaging process and avoid future incidents. And in Turkey, our latex tanks recently overflowed twice, contaminating the ground with latex. The installation of level sensors in the tanks will prevent overloading thanks to the clear information on the digital screen.

In the Netherlands, we carry out an internal audit based on the *principles of 5S*. This includes housekeeping around the site. If non-conformities are identified, the person responsible is requested to correct the non-conformity, and the division scores a 2 on the audit (*on a scale of 0 to 4*). Four weeks later, the audit is repeated. If the non-conformity continues, the division scores 1 and an official non-conformity is registered. All scores from the audit are followed up, including the official non-conformities.

#### NEW HEALTH, SAFETY AND HYGIENE INITIATIVES

During this reporting year we have introduced a range of health, safety and hygiene initiatives. This includes a new training course in the Netherlands about machine safety. The course looked to expand knowledge by enabling personnel to follow

the course for machinery they use in their daily activities, as well as machinery used in other areas. By standardising the use and maintenance of machinery across the site, we aim to improve safety and effectiveness.

We invested in new equipment and upgraded our facilities around the world. In Turkey a new floor cleaning machine was purchased to improve cleanliness in our warehouse. In Thailand, we introduced a fire foam chemical replacement to use in case of a fire in our monomer storage tanks. And in India, we upgraded the toilet and showering facilities for our personnel. Improved hygiene will help personnel protect themselves from potential health risks. We also implemented annual health checks in India to ensure the health of our personnel. The anonymised results show us general changes in health across the site, enabling us to quickly detect any potential work-related issues for the health of our personnel.

#### COMMUNICATION

We regularly communicate with our personnel about health, safety and hygiene. In the Netherlands, we schedule monthly toolbox meetings with supervisors from across our site to raise awareness of certain topics and share knowledge about regulations and future changes. We also place *Safety First* posters on noticeboards to raise awareness of important topics across all personnel. Topics include work safety, new regulations and PPE usage.

And in China we have *'Near Miss'* meetings. During these meetings we discuss incidents that were narrowly avoided and how we can reduce the risk of this type of incident occurring again. In this way, we use real examples to highlight areas that we need to improve. Since starting these meetings, there have been no related accidents.

## Social Performance Data 2011 - 2016

NUMBER OF EMPLOYEES WORKING IN/AS	2011	2012	2013	2014	2015	2016
Research & Development and Innovation	38	36	38	46	42	44
Internal first aid helpers	109	110	126	138	128	156
Prevention advisors	28	28	29	29	30	30
Safety & security	11	11	12	16	17	16

Within the EOC Group, we are strongly committed to employee training. In addition to the EOC Group standard training courses for all employees, necessary training is provided, depending on responsibilities and job level. We also train management and employees in key positions on specific policies and procedures concerning Human Rights and Anti-corruption. At this stage no data are available on a global level.

EMPLOYEE TRAINING		2011	2012	2013	2014	2015	2016
Trained in safety & security	number	-	-	-	309	379	487
	%	-	-	-	62.7	65.7	68
	hrs	-	-	-	2,080	2,944	3,538
Trained in environment & energy	number	-	-	-	161	189	195
	%	-	-	-	62.9	65.7	68
	hrs	-	-	-	398	632	583

The latest social data (2014-2016) concerning 'safety' are solely based on the Belgian activities within the EOC Group. Currently we are in a transfer period in which we standardize our global data, in order for the information to be more statistically relevant and comparable in the future.

SAFETY:		2014	2015	2016
Lost time injury frequency per million working hours	LTIF	16	23	12.4
Frequency rate per million working hours	(number of accidents)	16	23	12.4
Absolute number of fatalities for total workforce	(absolute number)	9	13	7
Minor injuries	(absolute number)	10	4	4
Major injuries	(absolute number)	12	17	11



# Environmental Responsibility

THE KEY IS TO MINIMISE THE IMPACT OF OUR ACTIONS ON OUR STAFF, THE COMMUNITY AND THE WORLD.

Environmental protection remains an important aspect of our sustainability policy. From finding ways to reduce our impact on the world around us to protecting the planet from potential risks and issues from our products, we fully consider the environmental impact of every action that we take.

Some of the many environmental concerns that EOC Group is currently working on include:

- preventing environmental accidents,
- investigating key risk areas concerning climate change and environmental management, implementing sustainable water management, and biodiversity.

We also partner with external companies and organisations when it is appropriate for achieving our goals.

## PREVENTING ENVIRONMENTAL ACCIDENTS

EOC Group actively implements local legislation and our own rules and regulations to prevent possible environmental accidents. This includes having clear reporting guidelines in case of an incident.

In the UK, EOC Group created an *Environmental Policy and Manual*. The manual contains a matrix that has been designed to highlight aspects and impacts detailing how we can be transparent to all stakeholders. Each aspect and impact has been given a numerical value based on its severity. Additionally, in the UK we use a DMS system on our intranet. Reports are filed with *British Standards Institution (BSI)* and *The Environmental Agency (local British authority)*. And any directions we receive from head office or external agencies and authorities are followed.

Following Chinese law for pollutant discharge permits, we have set up an online monitoring device for rain water at a

discharge point. In case of an incident, our policy states that we will contact the local authorities promptly with all relevant information.

In Italy, EOC Group is audited annually by an external government agency. All communication is done via official channels to the Province, *ARPA (Office for Environment Protection)* and the municipality.

We use systematic detection and analysis of reported non-conformities and incidents, including the root cause analysis, to address the causes of incidents in Belgium. This information is used to correct procedures and regulations as required. Environmental incidents are reported to the *Environmental Inspection (Belgian authority)*, as well as other services or departments (e.g. *the municipality or city*), depending on the nature of the incident.

At our premises in Thailand, we follow our *ISO 14001* procedures. In case of an incident, our procedures state that our Assistant Production Manager or Safety Officer will communicate with all relevant stakeholders.

And in India, we follow the norms from the *Maharashtra Pollution Control Board* for our onsite primary effluent treatment plant before our treated effluent goes to a common effluent treatment plant. To meet these norms, we have created an in-house facility for testing effluent quality daily in order to strictly adhere to set parameters.

### WATER MANAGEMENT

The use and reuse of water is a key aspect of our sustainability programme. In the previous reporting period we mentioned

various projects including the installation of water treatment centres in Belgium and India, water filters in Belgium and the UK and water reuse processes in the Netherlands. All these projects are ongoing, helping to improve our overall sustainability.

In this reporting period, EOC Group has focused more on the reuse of water, with the aim of reducing our water consumption and increasing the reuse of rain water.

In Belgium we have launched several new projects. We started the preparation for a groundwater winning project, which will continue into the next reporting period. And we have also started to replace drinkable water with groundwater, as the local groundwater is very high quality and we only need to remove iron and manganese. For each of these projects, we have received the necessary environmental permits and received government advice and assistance.

In our Oudenaarde premises in Belgium, we are treating and purifying waste water in a biological way by limiting the concentration of Chemical Oxygen Demand (*COD*) and nitrogen. Initial results are positive.

We reuse significant amounts of wash water and effluent water press in the UK. After creating a new compound we need to use vast amounts of water to wash out the system. The environmental impact and cost of using fresh water every time would be too high, so we reuse the same water to flush out the system when we create the same compound. This reduces the amount of fresh water that we need.

Furthermore, all used water, including rain water, is gathered in underground pits in the UK. The used water is processed through effluent water presses and filtered back into the sewer system,

so it can be 'returned' to the *Water Board*. This project was carried out with assistance from the *BSI* and *The Environmental Agency*. The results are positive: less fresh water used, lower operating costs, smaller carbon footprint and we have exceeded our KPI targets. We plan to continue these procedures in the coming years, improving where necessary.

EOC Group in India flushes the reactor with water after every batch. We sometimes use water batching to ensure that the reactor is clean without any risk of cross-contamination. Water used to flush the reactor is collected separately and recycled in subsequent batches to reduce the fresh water intake and potential increase batch yield. Additionally, this reduces effluent generation and treatment costs. In India we are working towards being a zero discharge effluent plant.

Another project in India concerns the old cooling water plant in our Mumbai premises which was recently replaced. The new installation is more energy and water efficient, helping the company achieve its sustainability goals and save costs. In Thailand, we recycle condensate water from the DI (*Deionized*) water plant to clean IBCs and drums. Water is collected in a large storage pit until it is needed.

And in China, we collect water after cleaning protective clothing so it is sent to the waste water collection system. All water used for eye-washing is collected separately to avoid water contamination to the living water network system. EOC Group has applied for a Pollutant Permits to control the amount of discharge and monitor the discharge concentration. The permit is in compliance with environmental law.

Additionally, EOC Group has installed an organic waste water pipeline from our premises in China to *Sino-France ETP*. The

pipe pumps the organic waste water directly to *Sino-France ETP*, replacing the need for truck delivery. Avoiding truck delivery reduces the risk of pollutant discharge.



### BIODIVERSITY

Maintaining the biodiversity of our planet while carrying out our daily activities remains important to us. This can take the form of small and large actions. In Belgium, EOC Group has recently installed a bee hotel, as recommended by *Natuurpunt*, a national non governmental organisation (*NGO*).

And local authorities in India recently requested industry to plant trees on a third of their open land. EOC Group has developed gardens and planted trees on almost 45% of our open land at our premises in Mumbai, India. We plan to expand our garden area in the following reporting year.

### CLIMATE CHANGE AND ENVIRONMENTAL MANAGEMENT

We understand that climate change is a real threat that we need to tackle now with far-reaching environmental management programmes. Within EOC Group, we have identified a number of key risk areas connected to climate change and environmental management, and are establishing ways to reduce these risks. Using energy efficiently is important in the Netherlands, which means we avoid lowering production output as much as possible. This is because when production levels fall, the amount of energy used per ton increases.

In Belgium we focus on the risk of global warming with an energy consumption policy and KPI. This includes programmes for

reducing energy consumption, an awareness campaign, *ISO 14001* management system and procedures, and the *Charter Duurzaam Ondernemen VOKA (the VOKA Sustainable Enterprise Charter)*.

We also follow several programmes for reducing energy consumption in the UK. These include internal policies and procedures, awareness campaigns, pollution and accident prevention, training on new environmental procedures and the *ISO 14001* management system and procedures. We use environmental monitoring systems to investigate new ways of reducing the amount of energy used onsite.

The risk of contamination is another important aspect to consider. In China, IBCs are stored outside and exposed to the elements. This could lead to damage in accidents with vehicles, or contamination from heavy storms, rain, snow or local operations. An alternative solution is being investigated. In Thailand, several products are used in the same reactor which risk contamination and wastes products. And in India, EOC Group has to be prepared for extreme weather conditions. In drought conditions we need to save water to ensure the smooth running of our operations and in monsoons and floods we need to protect our installations by ensuring proper drainage.

### ENVIRONMENTAL INITIATIVES

Here is an in-depth look at some of our environmental initiatives in India and the UK.

#### *India: live steaming inside the reactor*

We recently changed procedures for water usage in our reactor

in India. Water is an important raw material as the products we manufacture contain almost 50% water. 80% of the required water enters the reactor at the beginning of the process, pre-heated to just under 90° Celsius. We used to heat the water indirectly by passing steam through the reactor's jacket. However, this caused both energy loss and heat loss. To reduce this wastage, we are now adding steam directly to the water in the reactor, increasing the speed of heating and minimising energy loss. This has directly led us to reduce fuel and water consumption and reduce effluent generation.

#### *UK: low energy lighting*

EOC Group recently decided to replace all the lighting in Production Area 1 of our UK premises with low energy lighting. Even though energy saving lightbulbs have been introduced and used everywhere across the plant, they still use excessive amounts of energy compared to modern LED lightbulbs.

Before the change was implemented, a number of questions needed to be investigated: how much would the LED lightbulbs cost? Would there be a long-term cost saving with the new LED lightbulbs as they last longer? Would the initial investment be counterbalanced by the cost savings of reduced energy consumption? How much less energy do the LED lightbulbs use?

The results were positive. After the substantial initial outlay, the LED lightbulbs would use 90% less energy than the energy saving lightbulbs we were currently using. This meant we would be able to recoup the initial investment quickly and significantly reduce our energy consumption and our carbon footprint.

WE ARE HAPPY TO WORK WITH EXTERNAL ENVIRONMENTAL PARTNERS AS WE UNDERSTAND THAT WE CAN ACHIEVE MORE OF OUR SUSTAINABILITY GOALS WITH THEIR HELP THAN WE CAN BY JUST WORKING ON OUR OWN.



Our main external partner for sustainability in Belgium is VOKA with their Sustainable Enterprise Charter (VOKA Charter Duurzaam Ondernemen (VCDO)). VOKA offers EOC Group the **opportunity to work on a result-oriented and continuous optimization of sustainable entrepreneurship through a customized action plan**. The Sustainable Development Goals of the United Nations form the universal framework for this. VOKA supports our environmental efforts, annually evaluating the Belgian premises to ensure EOC Group meets their environmental responsibility and social progress guidelines. Passing VOKA's annual evaluation helps our reputation towards stakeholders in the area.

[www.voka.be/vcdo](http://www.voka.be/vcdo)



EOC Group in India follows the requirements of the Maharashtra Pollution Control Board (MPCB), which **ensures all liquid, gaseous and solid discharges from industry fall within tolerated limits**. MPCB is implementing various environmental legislations in the state of Maharashtra, mainly including Water Act, Air Act, Environmental Act including the rules, like Hazardous Waste Rules and Municipal Solid Waste Rules. The control board visits EOC Group premises to collect samples and undertake analyses before sharing their findings and recommendations.

[mpcb.gov.in](http://mpcb.gov.in)



In the Netherlands, we work with ECO Reest, an environmental advisory service, which supports clients through their independent research and advice. The organisation consists of consultants and field staff with various specialisms which **support sustainability goals, people, environment and society**. EOC Group consults with ECO Reest about **environmental permits, local environmental studies and regulation changes concerning the environment and our industry**. We think it is important that we strive for return on investment, so that we ensure continuity of our company and can continue to invest in further environmental responsibility and to develop it.

[www.ecoreest.nl/](http://www.ecoreest.nl/)



And EOC Group in the UK works with The Environmental Agency, an executive non-departmental public body, sponsored by the Department for Environment, Food & Rural Affairs. The Environmental Agency **sets regulations and monitors all businesses that have an environmental impact, which create better places for people and wildlife, and support sustainable development**. By following their regulations, EOC Group will create as little environmental impact as possible.

[www.gov.uk/government/organisations/environment-agency](http://www.gov.uk/government/organisations/environment-agency)



# Environmental Responsibility

REDUCING ENERGY CONSUMPTION IS NOT ONLY GLOBALLY BUT ALSO AT EOC GROUP A MAIN TOPIC.

Reducing energy consumption is a good way to improve our sustainability. As well as the reducing costs, it is also good for the environment. In addition to continuing the energy-related initiatives we reported in our previous sustainability report, we have launched a number of new initiatives around the world.

Reducing energy usage has **two major advantages: it lowers our costs and helps the environment.** Here are some of the initiatives that we have undertaken to reduce energy usage at EOC Group.

## REDUCING ENERGY USAGE

As LED lighting uses 90% less energy than a standard bulb, we installed LED lighting in India, Italy, the Netherlands, Thailand and the UK. The energy saving is measured via meter readings and analysis of the electricity bills.

Manual operation of certain equipment so it runs on demand instead of constantly running has reduced energy

consumption in China and India. In China the cold demi water supply pump has been changed from always being open to manual operation on demand. And in India, equipment that has a high energy consumption rate, such as cooling water pumps and reactor agitators, are now controlled by personnel on the factory floor.

In Italy, pressure on the steam generator has been decreased by 1 bar. The steam generator, piping line and pump have been better insulated. An inverter has been installed for the air blower at our waste water plant in Thailand. And some processes have been changed in India to reduce filtration time and reduce batch time cycles, reducing energy consumption per batch.

We have performed an energy audit at two of our locations in Belgium. Based on the results, we are investigating different potential initiatives including a tulip burner, cogeneration, insulation and lighting. Potential energy reductions will be measured via analysis of invoices and a nanogrid system.

EOC Group also looks at indirect ways of saving energy. One method is to change production volumes or capacity. In China, production time has changed from 3 days to 2, increasing production volumes and reducing the energy required per batch. And in India, we changed our boiler from a large to a lower capacity, which reduces power consumption.

Another equipment change in India was the installation of an energy-efficient planetary gear box for the new reactor, plus a variable frequency drive for the reactor agitator. The objective of these changes is to reduce energy consumption by only using a 40HP motor.

#### COMMUNICATION ABOUT ENERGY USAGE

When implementing a new energy policy, it is important to let stakeholders know about the change, the reasons behind it and the expected benefits. Communication can take the form of training, internal communications, informal discussions and reporting.

We launched an awareness campaign in Belgium to raise awareness of the need to reduce energy consumption. This included articles in our internal newsletter, information on our intranet and eye-catching posters.

In China, EOC Group used a mixture of discussions and training to explain our latest energy policies. A project to recycle cooling water was recently implemented. Management discussed the changes for modifying and monitoring the pipes with the maintenance and production personnel. The successful implementation of this change resulted in reducing inorganic waste water by 5MT per week and fresh industrial water by

another 5MT per week. After installing a cold demi water supply pump to reduce energy consumption, production personnel in China were given training. This new pump has reduced energy consumption by 80KWH per day.

Training was also used in the UK. *Groundworks*, an external partner, gave a bespoke training to all personnel. The training showed them how every individual can have a positive impact on the environment: from small actions like turning off a light when you leave a room to recycling, composting and upcycling. The training course will now be offered to personnel in the UK twice a year to keep them up to date with new findings and procedures. Furthermore, details of the course have been shared with other EOC Group locations, *BSI* auditors, internal auditors and all other interested parties. Due to the nature of the course, it is not possible to say how much energy has been saved. However, it will ultimately help to save costs by adapting and improving attitudes towards environmental issues.

#### ENERGY-RELATED RISKS

Energy is also about risks. EOC Group pays attention to the situation around us to identify, and hopefully, plan ways to avoid these risks. Energy-related risks and their consequences were reported in India and in the Netherlands.

There is a risk of electrical power scarcity in India. To tackle this, EOC Group has undertaken power management, which involves daily monitoring, strict controls and training operators. And in the Netherlands, energy prices have recently fallen. While this is economically beneficial, it means there is less financial incentive to be environmentally friendly and invest in eradicating non-renewable energy.

## WORKING WITH EXTERNAL PARTNERS TO IMPROVE OUR ENERGY EFFICIENCY IS KEY. OUR PARTNERS FOR ENERGY USAGE OFFER EXPERTISE AND EXPERIENCE FROM WITHIN THE ENERGY AND KNOWLEDGE SECTORS.



The energy choices of EOC Group in Belgium are strategic: they have an influence on the energy independence and the competitiveness of the company. These choices generate legal, social, technical and ecological obligations. **Together with EDF Luminus, we invest in the energy challenges of tomorrow and focus on renewable energy with a future Wind Turbine Project at Adhesives Evergem.** EDF Luminus develops projects with respect for the environment, the landscape and above all the local residents. For this project EDF Luminus is in contact with the municipalities, province and region where the wind farm will be located in the future. The phase after the permit application will last until the end of 2017. If a favorable advice is given, construction can begin immediately afterwards. The wind turbine will supply electricity to EOC Surfactants and EOC Adhesives in Evergem. This project will provide approximately 80% of the electrical consumption of both sites. The electricity that is not taken internally will be injected on the grid. [edfluminus.edf.com](http://edfluminus.edf.com)



And in India, **we work with Maharashtra State Electricity Board (MSEB), a state-owned electricity regulation board operating within the state of Maharashtra, to reduce our energy consumption and control our monthly tariffs. Additionally, surplus power from the grid can be diverted to other companies.** We still experience power failures in India which hampers our productivity as we need to use Distributed Generation sets which are less efficient. The State Government is setting up a renewable energy centre within 2019 in collaboration with the Power Grid. It will develop an efficient, coordinated and economical system of interstate transmission lines for smooth flow of electricity from generating stations to the load centres. Power Grid ensures principles of reliability, security and economy matched with the rising expectation of a cleaner, safer, healthier environment of people, both affected and benefited by its activities. [www.powergridindia.com](http://www.powergridindia.com) [www.mahadiscom.in](http://www.mahadiscom.in)



EOC Group in the UK works with **Groundwork, an experienced organisation that provides environmental expertise, legislative advice, updates, training, audits and consultancy services. Groundwork aims to improve the quality of life throughout the UK.** Its priorities are people, places and prosperity, and it aims to build safer and stronger communities, to promote health and well-being, to support local economies, to promote environmental sustainability, to combat climate change, to provide young people with something to do, and to tackle unemployment. They ensure that EOC Group is fully aware of all British environmental legislation and that personnel in the UK are aware of the environmental aspects and impacts through regular training sessions to reduce energy use and waste and to build relationships with our local communities. Groundwork's services helps us to be more competitive, reduce waste and comply with legislations. [www.groundwork.org.uk](http://www.groundwork.org.uk)



# Environmental Responsibility

## TRANSPORT AND LOGISTICS FOCUSES ON SAFETY ONSITE AND OUTSIDE OF EOC GROUP

**Transport and logistics remain important for EOC Group. While emissions from transportation continue to make up a large proportion of our environmental footprint, we are committed to implementing environmentally friendly solutions that do not jeopardise our punctuality and reliability standards.**

EOC Group understands that when dealing with transport and logistics, the resources involved include physical items (*e.g. materials, equipment and liquids*) as well as abstract items (*e.g. time and information*). Inefficient use of these materials risk EOC Group's ability to deliver orders to clients on time and in good condition, and ultimately our good reputation within the industry. That's why EOC Group works hard to mitigate this risk by ensuring that the correct procedures are in place relating to the integration of information flows, material handling, production, packaging, inventory, transportation, warehousing and security.

For the previous reporting year, EOC Group focused on improving the energy efficiency of vehicles, with hybrid vehicles being introduced in the UK and energy-efficient trucks entering our fleet in Belgium and Poland. Additionally, EOC Group investigated the environmental benefits of alternative transportation methods and expanding our fleet partners. These programmes are spread over the entire EOC Group, helping to reduce our overall environmental footprint.

A connected follow-up to these programmes was launched in the Netherlands last year, where we decided to gain insights into fuel efficiency of our fleet. At present, we are still collecting the initial data to give us a clear benchmark. This will then be used as a key performance indicator in future projects to help us measure our fuel efficiency with the goal of lowering both transport costs and emissions per kilometre.

During the reporting year, we have continued our sustainability efforts. Some of our **transport-and logistics-related sustainability projects** include improving onsite safety, reducing the environmental impact of our packaging and increasing safety awareness of stakeholders.

### IMPROVING ONSITE SAFETY

The onsite routes between EOC Group's production plants and warehouses are used by trucks, forklifts and personnel, making them a key risk area. Even though there haven't been any incidents, we decided to take proactive action in the Netherlands to reduce the potential risk. A speed limit of 15 km/h is strictly enforced across our site in the Netherlands. Additionally, all personnel and drivers are required to wear high-visibility jackets. Clear signage and our updated rules and regulations informs all employees, visitors and suppliers about these changes. The combination of slow speeds and higher visibility will improve driver reaction times, reducing the likelihood of incidents.

In Turkey, the warehouse, production zone and offices are all in the same building. This means it can be dangerous for personnel to leave the warehouse, straight into an area used by trucks. We invested in clear warning signage, lower speed limits and increased use of high-visibility clothing to reduce this risk. And in the UK, onsite traffic flow is now controlled by the use of automated gates at the rear of the plant. Combined with the expanded site rules, which clearly outline expectations for all visitors, personnel and suppliers, the risk of incidents involving trucks is reduced.

Another issue highlighted in the Netherlands was the risk of blocked exits in the warehouse. Frequent spot-checks on the access and visibility of the exits, clearer signage and the addition of this issue to the 4-weekly safety and environmental audit has helped to reduce the incidents of blocked exits.

In Italy, we turned our attention to safety issues for drivers when loading and unloading road trucks, which sometimes requires them to climb atop the truck. Keeping drivers safe in

this situation requires a comprehensive fall prevention strategy that includes fall protection equipment and personnel training. To mitigate the real risk of a life-threatening injury from falling, EOC Group installed a lifeline in the surfactants loading and unloading bay.

Compulsory training for all forklift drivers also improves onsite safety as drivers are more aware of potential dangers and relevant rules and regulations, including speed limits. Additionally, awareness of unsafe driving can decrease the number of accidents and spillage of materials, reducing the likelihood of personnel being injured or materials being wasted. While compulsory training is already standard for a number of our locations, it wasn't previously required in China. In order to increase onsite safety in China, we introduced compulsory training with certification. Without a valid certification, personnel cannot operate a forklift truck. Since implementing this new procedure, there have been no incidents involving a forklift truck.

In the UK, we have been looking into Class 1 Driver Training for driving tankers. Currently, we work with experienced drivers from an external transport supplier, but in the future we would prefer not to outsource this service to reduce costs and give us more control over delivery schedules. To achieve this goal, EOC Group has trained two existing production employees to become Class 1 Driver certified. One employee has already passed his certification, and the second employee is already part way through his training.

In addition to implementing new safety rules and regulations on the roads around our sites, EOC Group is also looking at ways to improve safety in our warehouses. In the Netherlands, we noticed that stacking raw materials sometimes resulted in the uppermost pallets slipping or sinking, potentially damaging

the materials below them or falling into the aisles and causing personnel injury.

In response to this potential risk, we introduced a new stacking procedure for raw materials. A wooden plate is now placed underneath each raw material container, so its weight is evenly distributed. Furthermore, regular checks are now scheduled to detect any slipping or sinking before an accident can occur. After an evaluation process, this new procedure will be expanded from the Netherlands to other EOC locations around the world. In some areas around the world, EOC Group works with external partners to ensure our onsite safety. In Portugal, we work with Percentil to discuss environmental audits and workspace safety and cleanliness.

### REDUCING THE ENVIRONMENTAL IMPACT OF PACKAGING

The local authorities in China have recently refused to issue any new IBC/drum cleaning certificates. They consider cleaning IBCs to be hazardous to human health due to banned cleaning chemicals like toluene. This left only a few companies that were certified to clean IBCs.

As most of our packaging in China was in IBCs, we investigated alternative packaging methods before deciding to change to ISO tankers. This has multiple benefits for the environment: less packaging, less cleaning with dangerous chemicals and less material loss.

EOC Group faced another issue with IBCs in the UK. Customers requested that EOC Group collect used packaging, including IBCs. As a responsible and sustainable company, EOC Group considers the collection of used packaging to be important. However, as our focus is on delivery of orders and not collection

of packaging, we outsourced this service to *Recon Packaging Ltd.*, a third party supplier.

Unlike the EOC Group in the UK, *Recon Packaging Ltd.* is a registered waste carrier. *Recon Packaging Ltd.* complies with all legislation governing waste carriers and waste transportation. EOC Group in the UK has contracted them to collect containers from our clients for refurbishing before they are supplied back to the company as required at a reduced cost. This enables EOC Group in the UK to focus on the needs of their customers while also helping reduce costs for the company.

EOC Group follows national and industry regulations closely around the world. In China, authorities have recently introduced legislation stating that all dangerous goods raw material must be transported in a certified dangerous goods truck. As well as carrying a dangerous goods logo which cautions other road users to their dangerous load, certified trucks are also equipped with all necessary safety equipment to deal with this type of material in the event of an accident. Furthermore, all dangerous goods truck drivers undergo specialised training as incorrect handling and transport of dangerous goods raw materials could result in severe injuries and property loss. In addition to the potential danger, transport by a standard truck costs significantly less than by a certified dangerous goods truck. For these reasons, EOC Group in China has implemented new regulations that refuse entry to any standard truck that is carrying dangerous goods raw materials to its premises.

### INCREASING SAFETY AWARENESS OF INTERNAL AND EXTERNAL STAKEHOLDERS

Good working relationships with our suppliers help to ensure onsite safety for all visitors, suppliers and personnel. This is

done in several ways, including developing new safety rules and regulations, the availability of personal protective equipment (PPE) and blacklists.

Our safety rules and regulations are available for all visitors, personnel and suppliers to read and follow. If there are queries concerning any of these regulations, we are always open to discuss the reasons behind it, so there is always a clear understanding of its purpose and role in ensuring our safety.

Even though we strive to ensure that all third party suppliers follow our onsite safety rules, occasionally there are still incidents. A recent incident in China involved a truck driver who didn't follow our delivery instructions that are included with our company procedures. Involvement of our security team was necessary to inform the truck driver about the safety and security protocols for delivering and unloading a sea container of latex at an EOC Group premises. The transport supplier was given a warning. Additionally, EOC Group insisted that all drivers that transport EOC Group supplies be given sufficient training for them to understand the importance of safety and security protocols and the reasons why they need to abide by the EOC Group rules and regulations which are based on national and industry legislation.

EOC Group safety rules and regulations don't just apply to trucks from our suppliers. They also apply to trucks making deliveries to our customers. In Portugal, we have recently concluded discussions with our transport suppliers to ensure that loads are securely fixed before departure to ensure that IBCs do not get damaged during transport. And in China we are paying attention to not overloading our trucks and securing

our packaging firmly to reduce the risk of incidents.

EOC Group around the world provides PPE as required by visitors, personnel and suppliers. In China, this equipment includes helmets, shoes and non-flammable exhaust caps, which are all available at the security entrance. As well as being obliged to wear PPE, drivers are also asked to read a guide about onsite regulations and sign that they will abide by it. Without this agreement, drivers are not allowed onsite.

We have provided truck drivers with training courses about the importance of PPE in Thailand, and spoken to drivers in Portugal about PPE requirements when unloading vinyl acrylate monomer, a highly flammable material.

It is not just truck drivers that need to learn more about the importance of PPE. In the UK there are concerns about sensitization to natural rubber latex. After a full risk assessment to determine how to handle this substance to prevent sensitization, we have put controls in place to ensure that all personnel are using the correct PPE at all times when handling the substance as well as following the new hand cleansing procedure. Weekly checks have been introduced to check for signs of sensitization, with immediate treatment and reporting if signs are found.

Another policy implemented in China is a driver blacklist. Drivers that are unable to comply with the EOC Group's rules and regulations are placed on the blacklist and are refused entrance to EOC Group's premises in China. Additionally, we have a '3 strike' policy in China where repeated offenses result in EOC Group terminating their working contract with a supplier.

## Environmental Performance Data 2014 - 2016

<b>EMISSIONS OF GHG (greenhouse gases)</b>		<b>2014</b>	<b>2015</b>	<b>2016</b>
Total emissions	tonnes CO2/tonnes of product produced	0.0518	0.0506	0.0502
<b>WATER WITHDRAWAL</b>		<b>2014</b>	<b>2015</b>	<b>2016</b>
Total water withdrawal	tonnes/tonnes of product produced	1.1407	1.1488	1.1690
<b>ENERGY CONSUMPTION</b>		<b>2014</b>	<b>2015</b>	<b>2016</b>
Total direct energy usage	Petajoule (PJ)	0.4437	0.4912	0.4681
Direct energy efficiency in production	MWh/tonnes of product produced	0.2542	0.2612	0.2578
<b>WASTE TREATMENT</b>		<b>2014</b>	<b>2015</b>	<b>2016</b>
Total waste	tonnes/tonnes of product produced	0.0315	0.0337	0.0326
Non-hazardous waste	tonnes/tonnes of product produced	0.0262	0.0287	0.0275
Hazardous waste	tonnes/tonnes of product produced	0.0053	0.0049	0.0050
<b>TRANSPORT</b>		<b>2014</b>	<b>2015</b>	<b>2016</b>
Road transport	%	94.1	94.4	93.1
Rail transport	%	1.4	1	2.5
Short-sea shipping and/or deep-sea shipping	%	4.5	4.6	4.4

The latest environmental data (2014-2016) concerning 'emissions to water and to air' are solely based on the Belgian activities within the EOC Group. Currently we are in a transfer period in which we standardize our global data, in order for the information to be more statistically relevant and comparable in the future.

<b>EMISSIONS TO WATER (BELGIUM)</b>		<b>2014</b>	<b>2015</b>	<b>2016</b>
Chemical Oxygen Demand (COD)	kg/tonnes of product produced	0.1197	0.1051	0.0538
Total Nitrogen	kg/tonnes of product produced	0.0462	0.0232	0.0034
<b>EMISSIONS TO AIR (BELGIUM)</b>		<b>2014</b>	<b>2015</b>	<b>2016</b>
Volatile organic compounds (VOCs)	kg/tonnes of product produced	0.0548	0.0466	0.0438
Nitrogen Oxides (NOx)	kg/tonnes of product produced	0.0621	0.0610	0.0596

# Looking to the future

Embedding the Sustainable Development Goals of the United Nations across our global business.

Since the 17 SDGs launch, the commitments and targets that comprise the SDGs have come to represent a global call to action.

EOC Belgium will play a key role in the global integration of the SDGs in the EOC Group. EOC Belgium's voluntary membership of the East Flanders Sustainability Charter program, which it joined in 2014, is a good example of that endeavor. Through the membership EOC Belgium visibly committed itself to improve sustainability by taking actions that go beyond the legal requirements. This led in Belgium to the *VOKA (Vlaams netwerk van Ondernemingen - Flemish Chamber of Commerce) Sustainability Charter Award* in June 2016, after a positive *VOKA* sustainability audit.

EOC Belgium carried out its first strategic exercise to map key activities and targets to the SDGs for the upcoming reporting years (2017 and 2018). Input from the businesses and experts were collected to map strategic projects, targets, policies and disclosures against the business indicators of the SDGs (reference on page 84 - 85).

This mapping is the next logical step to integrate the global goals and targets within the whole EOC Group. We look to elaborate further on how we can contribute even more by positioning the SDGs as a driver for the entire EOC Group in the future.

Embedding the 17 Sustainable Development Goals of the United Nations across our global business. Overall focus of the EOC Group in the future.

## PROSPERITY

We are determined to ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature.

## PLANET

We are determined to foster peaceful, just and inclusive societies which are free from fear and violence. There can be no sustainable development without peace and no peace without sustainable development.

## PARTNERSHIP

We are determined to mobilize the means required to implement this Agenda through a revitalised Global Partnership for Sustainable Development, based on a spirit of strengthened global solidarity, focussed in particular on the needs of the poorest and most vulnerable and with the participation of all countries, all stakeholders and all people.

## PEACE

We are determined to end poverty and hunger, in all its forms and dimensions, and to ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment.

## PEOPLE

We are determined to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations.





# Code of Conduct



EOC Group is committed to managing its business in accordance with its declared values. These values recognise that good social citizenship is an essential ingredient in creating and maintaining a sustainable future. It is reflected in the manner in which EOC Group interacts with its employees, business partners and host communities. This statement briefly summarises EOC Group's commitments.

## HUMAN RIGHTS

EOC Group is committed to the principles expressed in the *United Nations Declaration of Human Rights (and its protocols)* and the fundamental Principles and Rights at Work developed by the *International Labour Organisation (ILO)* in all of the countries in which it has (or will have) a presence.

## FREEDOM OF ASSOCIATION

EOC Group recognises the right of the employees to become, and remain, members of Trade Unions and the right of their representatives to negotiate and bargain collectively on their behalf. In circumstances where Freedom of Association and Collective Bargaining are restricted (*or prohibited*) under legislation, EOC Group works with employees, where they wish to do so, to establish alternative means of representation that are mutually acceptable. EOC Group provides reasonable access for employee representatives and ensures that they do not suffer any disadvantage or discrimination as a result of their role as a representative.

## CHILD LABOUR

EOC Group does not employ in any way, any individual who has not either reached the mandated school-leaving age or the minimum age set for employment in any country in which the company operates.

### FORCED LABOUR AND ABUSE

EOC Group is committed to treat employees in a humane manner. EOC Group does not tolerate any form of abusive behaviour not only related to employees, but also to those whom EOC Group conducts business with, e.g., suppliers, customers, members of host communities, local and national officials.

### EMPLOYEE RESPECT

EOC Group values the contribution made to the business by its employees. EOC Group is committed to create and maintain a working environment which is safe, respects individuality, is non-discriminatory, appoints and promotes employees on the basis of suitability, rewards fairly, encourages (*personal and professional*) development, and has effective mechanisms of communication.

### DIVERSITY AND NON-DISCRIMINATION

As a multinational company, EOC Group values the differences reflected in the diverse workforce.

EOC Group is committed to a working environment that rejects discrimination on any ground and eliminates any unfair practices that may arise in day-to-day conduct of the business in the process of recruitment, internal promotion, selection

for training or any other activity. In addition, EOC Group is committed to treat fairly and without prejudice, those with whom there is contact externally.

### FAIR COMPENSATION

EOC Group ensures that the pay rate for the standard working week (*or part thereof in the case of part-time employees*) in each country in which the company operates, at least matches the minimum standard set by the local government or legislature. In the event that no such standard is in place, EOC Group uses accepted industry standards or recognised norms to determine or adjust the relevant pay rates.

EOC Group maintains the practice of reviewing all wage and salary levels in accordance with the relevant collective agreements or, where none exist, at appropriately regular intervals.

### ANTI-CORRUPTION

EOC Group is committed to act lawfully, ethically, with integrity and responsibility in the way the company operates towards its people, organisation, communities, business partners and markets. EOC Group also expects all concerned parties to conduct business in an ethical and lawful manner, act with integrity and in compliance with all applicable legislation, including anti-bribery and anti-corruption laws:

- *EOC Group does not tolerate any form of bribery or corruption;*
- *EOC Group expects everyone to avoid participation in or knowingly benefit from any kind of corruption, extortion or bribery;*
- *EOC Group also prohibits facilitation payments;*
- *EOC Group markets products in compliance with all applicable rules and regulations, and in line with ethical standards;*
- *EOC Group is committed to achieve a high standard of ethical behaviour in everything that the company does.*

### EMPLOYEE DEVELOPMENT

One of EOC Group's key objectives is the continuous training and development of employees, encouraging each employee to reach his/her maximum potential. EOC Group supports learning and development programmes reflecting the necessity to constantly review and, where the necessity arises, raise the standards of business performance. EOC Group encourages the exchange of 'best practices' concerning knowledge, skills, health and safety.

### INTERNAL COMMUNICATION

EOC Group values regular, timely and efficient meetings with employees and their representatives, conducted in an open and constructive manner, to exchange views on all matters affecting the business including health and safety, working conditions, terms and conditions of employment and the performance of the business.

EOC Group uses appropriate media, such as intranet and newsletters, and departmental, functional and employee representative meetings at local levels.

### COMMUNITY INVOLVEMENT

EOC Group recognises that the company's plants, wherever situated, are a part of that local environment and community. As a socially responsible organisation, EOC Group is committed to develop a constructive and mutually supportive relationship with the host communities in whose domicile the company is privileged to operate. As a consequence, appropriate community activity and involvement is encouraged and promoted.

Apart from managing the business, a key element of each Plant Manager's role is to represent EOC Group within the local community and contribute to its development.

### ENVIRONMENT

EOC Group aims to efficiently use resources, minimising material and product wastage, promoting recycling, and optimising transportation requirements. EOC Group aims to produce goods in a sustainable manner with respect for people and environment, aiming for high energy efficiency, continuous lowering of environmental pollutants and zero complaints from local residents.

# Corporate policy statement

EOC Group is fully aware of the extreme importance of socially responsible behaviour, as well as sustainable entrepreneurship. Therefore, EOC Group continuously focuses on creating products that are environmentally friendly and contribute to the improvement in everyone's quality of life.

The companies in the EOC Group commit to continuous improvement of their security, product hygiene-, environmental, energy, sustainability and quality performance, with particular attention to:

- Increasing customer satisfaction
- Prevention of non-conformities
- Prevention of major accidents
- The efficient use of natural resources in the development, production and delivery of their products and services
- Prevention of health problems

To this end modern management techniques such as HAZOP, LOPA, HACCP, GXP and Lean Six Sigma are used.

The companies in the EOC Group ensure compliance with all relevant laws and regulations and the use of best available techniques, taking into account the socio-economic potential of the companies.

The continuous improvement of safety, health, product hygiene-, environmental, energy, sustainability and quality performance is assured by measuring the impact of all products and processes and evaluating in order to manage their potential risks and non-conformities. This is done on the basis of specific objectives for the assurance systems.

This policy is communicated to all employees and contractors of the EOC Group through constant training and sensitization and is held available for inspection by customers, the general public and the authorities.

EOC is committed to continuous improvement of energy efficiency and use of energy from sustainable sources. This includes targets for structurally reducing the energy consumption by means of optimizing operations within the relevant environmental laws and regulations and its social responsibility toward efficient use of raw materials and excipients and implementing the use of energy from sustainable sources.

Attention to safety, product hygiene, environment, energy, sustainability and quality is not only the responsibility of the respective managers but a fundamental part of everyone's job responsibility.

We are committed to make sufficient resources available to implement the management systems and to achieve the objectives. The objectives and policies will be measures and evaluated on a regular basis using indicators based on internal and external audits.



*By committing to this policy, EOC Group seeks to benefit all its stakeholders and strengthen its responsibility in its operating areas.*

# Risk management

In the chemical industry, being unprepared increases the potential for an environmental or social disaster. EOC Group understands the risks involved in handling hazardous raw materials for both people and the environment.

Clear and practical policies and procedures have been embedded across all locations, processes and business lines in order to tackle the risks involved in handling hazardous materials. Each of these policies helps management to track potential issues and communicate them to internal and external stakeholders. Following up this process ensures that continuous improvements can be made, increasing safety for all stakeholders.

The risk mitigation policies, programmes and tools are regularly evaluated and audited to ensure optimal efficiency and minimise business and environmental impact. An annual status report based on the evaluations and audits is used as part of the company's *Quality Assurance programme*.

Average percent of implementation of following EOC Group standards:



Key risk areas are addressed with relevant dedicated policies and risk-control programmes.

RISKS RELATED TO	IDENTIFIED RISKS	TOOLS
<b>PEOPLE</b>	<ul style="list-style-type: none"> <li>Accidents to employees</li> <li>Accidents to third party individuals on EOC Group sites</li> <li>Occupational diseases</li> </ul>	<ul style="list-style-type: none"> <li>Safety awareness initiatives, including programmes for behavioural safety and methods to improve the safety culture of employees, managers and contractors</li> <li>Dedicated safety management system at EOC Group sites</li> <li>Health and Safety Risk Assessment Support</li> <li>Active cooperation with external stakeholders (local, regional, national and international)</li> <li>Global Action Plan: short- and long-term action points concerning safety and security</li> <li>Protection of people and assets against the consequences of process incidents</li> <li>Integrated OHSAS 18001 Health and Safety Management System</li> </ul>
<b>PRODUCTS</b>	<ul style="list-style-type: none"> <li>Product-development risk</li> <li>Product-liability risk</li> </ul>	<ul style="list-style-type: none"> <li>EOC Group's GMP Policy that continuously improves safety, product hygiene, environment and quality performance</li> <li>Implemented management techniques: 5S, HACCP, HAZOP, GxP, LOPA and Six Sigma</li> <li>Intensive testing procedures for products and their production processes</li> <li>Integrated ISO 9001 Quality Management System</li> </ul>
<b>ENERGY, CLIMATE CHANGE AND ENVIRONMENTAL MANAGEMENT</b>	<ul style="list-style-type: none"> <li>Global warming</li> <li>Decreasing water availability</li> <li>Increasing storms</li> <li>Flooding and sea-level rise</li> </ul>	<ul style="list-style-type: none"> <li>Programmes to reduce energy consumption</li> <li>Policies and risk control programmes</li> <li>Awareness campaigns</li> <li>Monitoring and measures to prevent pollution and accidents</li> <li>Regular training</li> <li>Integrated ISO 14001 Environmental Management System</li> </ul>
<b>DIALOGUE ON RISKS AND CRISIS SITUATIONS</b>	<ul style="list-style-type: none"> <li>Damage to corporate reputation</li> </ul>	<ul style="list-style-type: none"> <li>Crisis management</li> <li>Communication processes</li> </ul>

<b>ADR</b>	Accord Dangereux Routier <i>(International Carriage of Dangerous Goods by Road )</i>	<b>HGV</b>	Heavy Goods Vehicle
<b>AOE</b>	Authorised Economic Operator	<b>HR</b>	Human Resource
<b>APEO-free</b>	Products free of alkylphenol ethoxylates	<b>IBC</b>	Intermediate Bulk Container
<b>BMI</b>	Body Mass Index	<b>ILO</b>	International Labour Organisation
<b>BS</b>	British Standard	<b>ISO</b>	International Organisation for Standardisation
<b>BSI</b>	British Standards Institution	<b>ISO 9001</b>	Quality Management System
<b>BRC</b>	British Retail Consortium (Global Standard for Food Safety)	<b>ISO 14001</b>	Environmental Management System
<b>COSMOS</b>	COSMetic Organic and Natural Standard	<b>Kosher</b>	Comply with Jewish religious dietary law
<b>CO<sub>2</sub></b>	Carbon dioxide	<b>KPI</b>	Key Performance Indicator
<b>COD</b>	Chemical Oxygen Demand	<b>LED</b>	Light-emitting diode
<b>COSHH</b>	Control of Substances Hazardous to Health	<b>LOPA</b>	Layers of Protection Analysis
<b>CPC</b>	Certificate of Professional Competence	<b>LTIF</b>	Lost Time Injury Frequency
<b>CSR</b>	Corporate Social Responsibility	<b>NGO</b>	Non-governmental organisation
<b>CWW</b>	Common Waste Water Treatment	<b>NOx</b>	Nitrogen Oxides
<b>DCM</b>	Dirt Control Mats	<b>OHSAS 18001</b>	Health and Safety Standard
<b>DMS</b>	Document Management System	<b>PU</b>	Polyurethane
<b>DI</b>	Deionized	<b>PPE</b>	Personal Protective Equipment
<b>EBIT</b>	Earnings Before Interest and Taxes	<b>PTE</b>	Part Time Employee
<b>EBITDA</b>	Earnings before Interest, Taxes and Amortisation	<b>R&amp;D</b>	Research & Development
<b>EFT</b>	Effluent Treatment Plant	<b>REACH</b>	Registration, Evaluation, Authorisation and Restriction of Chemicals
<b>EFQM</b>	European Foundation for Quality Management	<b>ROI</b>	Return on Investment
<b>EMAS</b>	EU Eco-Management and Audit Scheme	<b>ROU</b>	Reversed Osmosis Unit
<b>EPT</b>	Ethylene propylene terpolymer	<b>RSPO</b>	Roundtable for Sustainable Palm Oil
<b>ERP</b>	Enterprise Resource Planning	<b>SAP</b>	Systems, Applications & Products in Data Processing
<b>FTE</b>	Full Time Employee	<b>SDGs</b>	Sustainable Development Goals
<b>5S</b>	A workplace organisation method that uses a list of five Japanese words: Seiri ( <i>tidiness</i> ), Seiton ( <i>orderliness</i> ), Seiso ( <i>cleanliness</i> ), Seiketsu ( <i>standardisation</i> ), and Shitsuke ( <i>discipline</i> )	<b>SHEQ</b>	Safety Health Environment Quality
<b>GHG</b>	Greenhouse Gas	<b>Six Sigma</b>	A set of techniques and tools for process improvement
<b>GMP</b>	Good Manufacturing Practices	<b>SOP</b>	Standard Operating Procedures
<b>GRI</b>	Global Reporting Initiative	<b>SOx</b>	Sulphur Oxides
<b>GxP</b>	Good X Practice ( <i>a general term for Good Practice quality guidelines and regulations</i> )	<b>SVHC</b>	Substance of Very High Concern
<b>HACCP</b>	Hazard Analysis and Critical Control Point	<b>TPE</b>	Thermoplastic elastomer
<b>HAZOP</b>	Hazard and Operability Analysis	<b>TOC</b>	Total Organic Carbon
		<b>UN</b>	United Nation
		<b>UNGC</b>	United Nation Global Compact
		<b>VOCs</b>	Volatile organic compounds
		<b>XSBR</b>	Carboxylated Styrene Butadiene Rubber

# GRI index

GRI indicators can be found in guide boxes next to relevant content throughout this report. Additionally, the full list is published from page 96-101. GRI indicators are based on the standard disclosure areas. One EOC Group own indicator is used.

● Fully reported   ● Partly reported   ○ Not reported

Disclosure	Description	Reported	Cross-reference chapter and/or notes	Page(s)
<b>STRATEGY AND ANALYSIS</b>				
G4-1	Statement from the most senior decision maker of the organisation	●	Message from the CEO	6-7
<b>ORGANISATIONAL PROFILE</b>				
G4-3	Name of the organisation	●	About this report	10
G4-4	Primary brands, products and services	●	Global production	14-15
G4-5	Location of organisation's headquarters	●	Countries of operation	12
G4-6	Number of countries where the organisation operates	●	Countries of operation	12
G4-7	Nature of ownership and legal form	●	About this report	10
G4-8	Markets served	●	Global perspective	16-17
G4-9	Scale of the organisation	●	Economic performance data 2011-2016	53
G4-10	Number of employees	●	Social performance data 2011-2016	59
G4-11	Percentage of total employees covered by collective bargaining agreements	○		
G4-12	Organisation's supply chain	○		
G4-13	Significant changes during the reporting period	○		
G4-14	Explanation of whether and how the precautionary approach or principle is addressed by the organisation	●	Research and Development Innovation Looking to the future - 17 SDGs	22-27 28-29 82-85
G4-15	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organisation subscribes or endorses	●	Quality Assurance	18-21
G4-16	Memberships in associations and/or (inter)national advocacy organisations	●	Communication with stakeholders <i>Membership list can be found on <a href="http://www.eocgroup.com">www.eocgroup.com</a> under About EOC &gt; Memberships</i>	34-37 website
<b>IDENTIFIED MATERIAL ASPECTS AND BOUNDARY</b>				
G4-17	Entities included in the organisation's consolidated financial statements or equivalent documents	●	Countries of operation Global perspective	12 16-17
G4-18	Process for defining report content and the aspect boundaries	●	Message from the CEO About this report Sustainable governance	6-7 11 13
G4-19	Material aspects identified in the process for defining report content	●	EOC Group's guide to global progress Sustainability key areas	4-5 8-9

Disclosure	Description	Reported	Cross-reference chapter and/or notes	Page(s)
G4-20	Aspect boundary within the organisation for each material aspect	●	Economic Development Social Progress Environmental Responsibility	38-53 54-65 66-81
G4-21	Aspect boundary outside the organisation for each material aspect	●	Economic Development Social Progress Environmental Responsibility	38-53 54-65 66-81
G4-22	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement	●	The Global Sustainability Summary Report 2017 is fully aligned with the previous report (2015) as our 3 Sustainable Key Areas are identical. As EOC Group operates globally, projects with the same perspective may have been realized differently.	4-93
<b>ABOUT THIS REPORT</b>				
G4-23	Significant changes from previous reporting periods in the scope and boundary	○	No significant changes	-
<b>STAKEHOLDER ENGAGEMENT</b>				
G4-24	List of stakeholder groups engaged by the organisation	●	Communication with stakeholders	34-37
G4-25	Basis for identification & selection of stakeholders with whom to engage	●	Communication with stakeholders	34-37
G4-26	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group	●	Communication with stakeholders <i>Frequency list can be found on <a href="http://www.eocgroup.com">www.eocgroup.com</a> under About EOC &gt; Sustainability &gt; EOC Group Global Sustainability Summary Report 2015.pdf</i>	34-37 20-21
G4-27	Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its reporting	●	Communication with stakeholders Economic Development Social Progress Environmental Responsibility Innovation	34-37 38-53 54-65 66-81 28-29
<b>REPORT PROFILE</b>				
G4-28	Reporting period	●	About this report	10
G4-29	Date of most recent previous report	●	Message from the CEO	6
G4-30	Reporting cycle	●	About this report	10
G4-31	Contact point for questions regarding the report or its contents	●	About this report	10
G4-32	GRI Content Index, the 'in accordance' option the organisation has chosen and the reference to the External Assurance Report if any	●	About this report Note: No assurance statement	10
G4-33	Policy and current practice with regard to seeking external assurance for the report	○	Note: No assurance statement	
<b>GOVERNANCE</b>				
G4-34	Governance structure of the organisation	●	Sustainable governance	13
<b>ETHICS AND INTEGRITY</b>				
G4-56	Organisation's values, principles, standards and norms of behavior	●	Code of Conduct Corporate policy statement Risk management	85-87 90-91 92-93

## ECONOMIC DEVELOPMENT

<i>G4 Disclosure</i>	<i>G4 Indicator</i>	<i>EOC Group's focus points</i>	<i>Cross-reference chapter and/or paragraph</i>	<i>Page(s)</i>
<b>G4-EC1</b>	<b>ECONOMIC</b>			
	Economic performance	Profit through savings	Economic Performance Data 2011-2016: Key data	53
<b>G4-EC8</b>	<b>ECONOMIC</b>			
	Indirect economic impacts	Accountability Profit through savings	EOC Group's guide to global progress Sustainable key areas Quality assurance Research and Development Innovation Communication with stakeholders Sustainability key areas: Economic Development Sustainability key areas: Social Progress Sustainability key areas: Environmental Responsibility Looking to the future Code of conduct Corporate policy statement Risk management	4-5 8-9 18-21 22-27 28-29 34-37 38-53 54-65 66-81 82-85 87-89 90-91 92-93
<b>G4-EC9</b>	<b>ECONOMIC</b>			
	Procurement practices	Production & resourcing	EOC Group's guide to global progress Sustainable key areas Global production Global perspective Quality assurance Research and Development Innovation Communication with stakeholders Sustainability key areas: Economic Development Corporate policy statement	4-5 8-9 14-15 16-17 18-21 22-27 28-29 34-37 38-53 90-91
<b>EOC-DP</b>	<b>EOC GROUP'S OWN INDICATOR</b>			
	There is no specific G4 indicator on Dialogue & Partnerships; instead this reports all EOC Group's focus points.	Dialogue & partnerships	EOC Group's guide to global progress Message from the CEO Sustainable key areas Quality assurance Communication with stakeholders Research and Development Innovation Communication with stakeholders Sustainability key areas: Economic Development Sustainability key areas: Social Progress Sustainability key areas: Environmental Responsibility Looking to the future	4-5 6-7 8-9 18-21 34-37 22-27 28-29 34-37 38-53 54-65 66-81 82-85

## SOCIAL PROGRESS

<i>G4 Disclosure</i>	<i>G4 Indicator</i>	<i>EOC Group's focus points</i>	<i>Cross-reference chapter and/or paragraph</i>	<i>Page(s)</i>
<b>G4-LA1</b>	<b>LABOUR</b>			
	Employment	Social progress	Social Performance Data 2011-2016: Key data	59
<b>G4-LA5</b>	<b>LABOUR</b>			
	Occupational health & safety	Safety & security	EOC Group's guide to global progress Sustainable key areas Sustainability key areas: Social Progress	4-5 8-9 54-65
<b>G4-LA6</b>	<b>LABOUR</b>			
	Occupational health & safety	Safety & security Health & well-being	EOC Group's guide to global progress Message from the CEO Sustainable key areas Quality assurance Sustainability key areas: Social Progress Looking to the future Code of conduct Corporate policy statement Risk management	4-5 6-7 8-9 18-21 54-65 82-85 87-89 90-91 92-93
<b>G4-LA9</b>	<b>LABOUR</b>			
	Training & education	Employee development	EOC Group's guide to global progress Message from the CEO Sustainable key areas Quality assurance Communication with stakeholders Sustainability key areas: Social Progress Looking to the future Code of conduct Corporate policy statement Risk management	4-5 6-7 8-9 18-21 34-37 54-65 82-85 87-89 90-91 92-93
<b>G4-S01</b>	<b>SOCIETY</b>			
	Local communities	Community engagement	EOC Group's guide to global progress Message from the CEO Sustainable key areas Communication with stakeholders Looking to the future Code of conduct	4-5 6-7 8-9 34-37 82-85 87-89

## ENVIRONMENTAL RESPONSIBILITY

<i>G4 Disclosure</i>	<i>G4 Indicator</i>	<i>EOC Group's focus points</i>	<i>Cross-reference chapter and/or paragraph</i>	<i>Page(s)</i>
<b>G4-EN6</b>	<b>ENERGY</b>			
	Energy reductions	Energy savings	EOC Group's guide to global progress Message from the CEO Sustainable key areas Quality assurance Research and Development Innovation Communication with stakeholders Sustainability key areas: Economic Development Sustainability key areas: Environmental Responsibility Looking to the future Code of conduct Corporate policy statement Risk management	4-5 6-7 8-9 18-21 22-27 28-29 34-37 38-53 66-81 82-85 87-89 90-91 92-93
<b>G4-EN150</b>	<b>WATER</b>			
	Water recycled and reused	Less water use, less water pollution	EOC Group's guide to global progress Sustainable key areas Quality assurance Research and Development Communication with stakeholders Sustainability key areas: Economic Development Sustainability key areas: Environmental Responsibility Looking to the future Code of conduct Corporate policy statement	4-5 8-9 18-21 22-27 34-37 38-53 66-81 82-85 87-89 90-91
<b>G4-EN15</b>	<b>EMISSIONS</b>			
	GHG emissions (Scope 1)	Less CO <sub>2</sub> emissions	EOC Group's guide to global progress Sustainable key areas Research and Development Innovation Communication with stakeholders Sustainability key areas: Economic Development Sustainability key areas: Environmental Responsibility Looking to the future Code of conduct Corporate policy statement Risk management	4-5 8-9 22-27 28-29 34-37 38-53 66-81 82-85 87-89 90-91 92-93

<i>G4 Disclosure</i>	<i>G4 Indicator</i>	<i>EOC Group's focus points</i>	<i>Cross-reference chapter and/or paragraph</i>	<i>Page(s)</i>
<b>G4-EN25</b>	<b>EFFLUENTS &amp; WASTE</b>			
	Hazardous waste	Reusing, recycling, reducing waste	EOC Group's guide to global progress Sustainable key areas Quality assurance Research and Development Sustainability key areas: Social Progress Sustainability key areas: Environmental Responsibility Risk management	4-5 8-9 18-21 22-27 54-65 66-81 92-93



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