



# Delivering growth in speciality chemicals

**Synthomer plc** Sustainability Report 2018



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## Sustainability Report 2018

**Synthomer is a speciality chemicals company and one of the world's leading suppliers of aqueous polymers. With strong geographic diversity and product differentiation, Synthomer holds leadership positions in a wide range of markets including coatings, construction, textiles, paper and healthcare.**

We continue to make positive progress towards our strategic objectives, delivering strong growth through capital investment and strategic acquisitions, coupled with an increasingly global approach to serving our customers and end markets.

## Commercial highlights

### Fourth consecutive year of growth and record profitability:

- Investment in organic and inorganic growth combined with geographic diversity and product differentiation underpinned solid progress in 2018
- Underlying profit before tax up 3.9% at £135.1m (2017: £130.0m)
- IFRS profit before tax up 39.2% at £120.3m (2017: £86.4m)

### Europe and North America (ENA) resilient in challenging market conditions:

- Market leading position in aqueous polymers in Europe
- Volume growth driven by acquisition of BASF Pischelsdorf (Austria)
- Unit margins stable, recognising transactional impact of weak USD and significant raw material price volatility
- Underlying operating profit £5.9m lower at £111.2m (2017: £117.1m)
- IFRS operating profit up 18.5% at £91.8m (2017: £77.5m)

### Asia and Rest of the World (ARW) results driven by strong growth in Nitrile latex demand:

- Nitrile latex market growth in excess of 10% during 2018
- Nitrile latex unit margins strengthened due to improved supply/demand balance
- Successful commissioning of 90ktes Nitrile latex expansion at Pasir Gudang in Q4 2018, safely on time and on budget
- Underlying operating profit £10.6m higher

at £45.7m (2017: £35.1m)

- IFRS operating profit up 76.0% at £54.9m (2017: £31.2m)

### Continued focus and investment in organic and inorganic growth:

- £75.7m investment in capital expenditure, the most significant investment in Group history, securing future growth
- £17.1m investment in research and development continuing to drive innovation and new product formulations
- Successful acquisition and integration of the BASF Pischelsdorf SBR business, enhancing European SBR business and increasing market share in paper and packaging market

### Record return on R&D investment:

- 21% of sales volumes from new products launched in past 5 years
- Board approval for £5m investment in state-of-the-art Asian Innovation Centre based in Malaysia commissioning 2020

### Strong earnings per share performance:

- 6.8% rise in underlying earnings per share to 32.8p (2017: 30.7p)
- Reduced effective tax rate to 17.0% (2017: 19.0%), consistent with geographical profit mix and prior year items
- 34.9% rise in IFRS earnings per share to 29.4p (2017: 21.8p)

### Improved dividend per share in line with dividend policy:

- Dividend per share up 7.4% at 13.1p (2017: 12.2p) representing circa 40% of earnings per share

## Financial highlights

	Underlying		IFRS	
	2018	2017	2018	2017
Volume (ktes)	<b>1,517.6</b>	1,443.8	<b>1,517.6</b>	1,443.8
Revenue (£m)	<b>1,618.9</b>	1,480.2	<b>1,618.9</b>	1,480.2
EBITDA (£m)	<b>181.0</b>	176.2	–	–
Operating profit (£m)	<b>142.1</b>	139.0	<b>128.7</b>	95.4
Profit before tax (£m)	<b>135.1</b>	130.0	<b>120.3</b>	86.4
Earnings per share (p)	<b>32.8</b>	30.7	<b>29.4</b>	21.8
Dividends per share (p)	<b>13.1</b>	12.2	<b>13.1</b>	12.2
Net borrowings (£m)	<b>214.0</b>	180.5	<b>214.0</b>	180.5

### Underlying statement

The Group's management uses Underlying performance to plan for, control and assess the performance of the Group. Underlying performance differs from the statutory IFRS performance as it excludes the effect of Special Items, which are detailed in note 3 of the consolidated financial statements in the Annual Report. The Board's view is that Underlying performance provides additional clarity for the Group's investors and stakeholders and so it is the primary focus of the Group's narrative reporting. Where appropriate IFRS performance inclusive of Special Items is also described. References to 'unit margin' and 'margin' are used in the commentary on Underlying performance. Unit margin (or margin) is calculated on selling price less variable raw material and logistics costs. Further explanations can be found in notes 4, 5 and 6 to the consolidated financial statements in the Annual Report.

## Synthomer at a glance

### Highlights (GRI 102-7)

#### Europe and North America (ENA)

Volumes

**1,115.2ktes**

2017: 1,067.7ktes

Revenue

**£1,228.4m**

2017: £1,134.9m

Underlying operating profit

**£111.2m**

2017: £117.1m

EBITDA

**£135.8m**

2017: £140.9m

IFRS operating profit

**£91.8m**

2017: £77.5m

#### Asia and Rest of the World (ARW)

Volumes

**402.4ktes**

2017: 376.1ktes

Revenue

**£390.5m**

2017: £345.3m

Underlying operating profit

**£45.7m**

2017: £35.1m

EBITDA

**£59.7m**

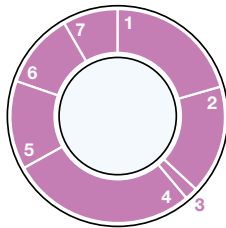
2017: £48.2m

IFRS operating profit

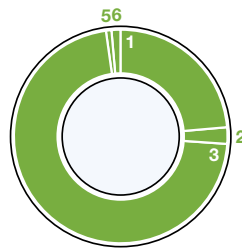
**£54.9m**

2017: £31.2m

### Volume by market (GRI 102-6)

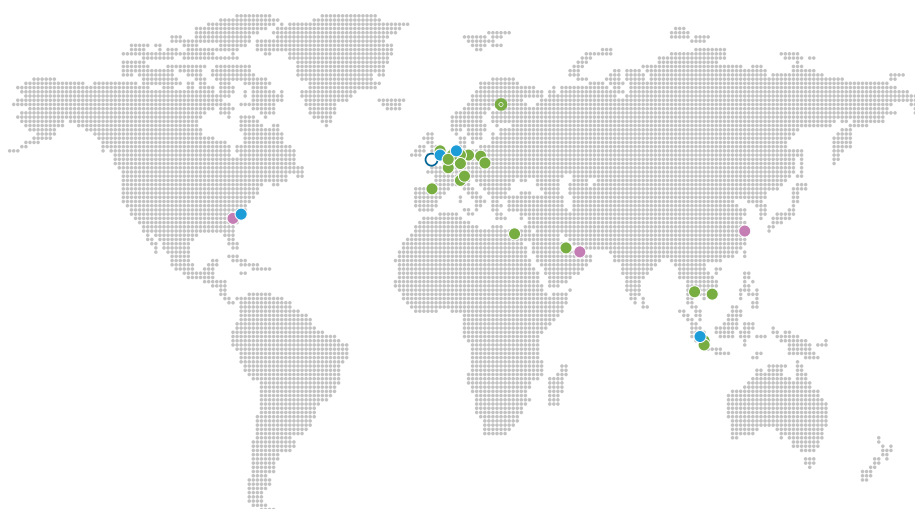


1	Construction & Coating	20.7%
2	Functional Polymers	16.4%
3	Health & Protection	1.8%
4	Paper	28.1%
5	Carpet & Foam	13.4%
6	Specialities	11.4%
7	Other	8.2%



1	Construction & Coating	23.7%
2	Functional Polymers	2.5%
3	Health & Protection	71.7%
4	Paper	0.0%
5	Carpet & Foam	0.8%
6	Specialities	1.3%
7	Other	0.0%

### Geographical Locations (GRI 102-4)



#### Key

- Sales office
- Operational head office
- Manufacturing site
- Manufacturing site and R&D centre

25

manufacturing sites

4

technical centres

18

countries

2,907

employees

4,000+

customers

1,000+

products

21%

of sales from products  
launched in last five years

1,518 ktes

volume

GRI 102-2, GRI 102-7

























This 2018 Sustainability Report is Synthomer's first company report that meets the requirements of the Global Reporting Initiative (GRI). This report has been prepared in accordance with the GRI Standards: Core option. GRI Disclosures references are indicated within the relevant sections, and the GRI Content Index can be found in the Annex to this Report. (GRI 102-54)

# 2018 Highlights and Achievements

Pillar	Highlights and achievements
 <b>Strategy and business</b>	<ul style="list-style-type: none"> <li>+ Sustainability Committee established to coordinate global sustainability activities, reporting directly to the Executive team</li> <li>+ Completed Programme of work to identify initial set of GRI Standards matched to the six key pillars identified by the materiality assessment</li> <li>+ Stakeholder engagement project completed to validate initial materiality assessment</li> </ul>
 <b>Governance and compliance</b>	<ul style="list-style-type: none"> <li>+ New interactive Code of Conduct launched across the Group, available in 13 languages</li> <li>+ New independent Ethics hotline established</li> <li>+ Achieved Ecovadis Silver rating for 4th consecutive year</li> </ul> 
 <b>People</b>	<ul style="list-style-type: none"> <li>+ New global “SmarHR” system roll-out completed across the Group</li> <li>+ Successful launch of Synthomer Talent Development Programme</li> <li>+ Asia HR training and development programme recognised with three Malaysian awards</li> </ul>
 <b>Health and Safety (Occupational and Process safety)</b>	<ul style="list-style-type: none"> <li>+ Wellness programmes established across several countries</li> <li>+ SHE Engagement – Global Site Management and SHE Management Conferences</li> <li>+ Completion of main phase of Process Hazard Revalidation Process</li> <li>+ Process Safety Event Rate reduced to 0.14</li> <li>+ Development of new internal Process Safety Training programme</li> </ul>
 <b>Environment</b>	<ul style="list-style-type: none"> <li>+ No environmental reportable incidents – best year on record</li> <li>+ 1.8% reduction in GHG emissions per tonne sales production</li> </ul>
 <b>Sustainable value chain</b>	<ul style="list-style-type: none"> <li>+ Strengthened Sustainability assessment within Procurement processes, implemented revised supplier audit methodology</li> <li>+ Litex QuickShield technology awarded “Best Innovation in Textile Chemistry” at Future Textile Awards 2018 – new formula eliminates need for formaldehyde and ammonia</li> </ul>

# Progress against 2018 Targets and Objectives

(GRI 103-2)

	Target Year	Progress
<b>Strategy and business</b>		
Complete materiality assessment review	2018	  
Formalise data gathering and monitoring of relevant GRI Disclosures	2018	  
Align sustainability reporting against GRI "Core" Standards	2019 on	  
Achieve and sustain "Gold" rating from Ecovadis	by 2020	  
<b>Governance and compliance</b>		
Launch updated Code of Conduct	2018	  
Introduce externally hosted ethical whistleblowing helpline (phone/web)	2018	  
<b>People</b>		
Implement Global HR Information System	2018	  
Deploy Global, market aligned, role and compensation framework	2018	  
Design & launch new Executive Leadership Global People Report	2018	  
Develop the Synthomer Diversity & inclusion plans	2018	  
Launch an enhanced Synthomer Leadership Development Programme	2018	  
<b>Health and safety</b>		
0.25 Recordable Case Rate (incidents per 100,000 working hours)	2018	  
0.20 Process Safety Event Rate (incidents per 100,000 working hours)	2018	  
<b>Environment</b>		
<i>The first four metrics below are based on revised 2017 baseline</i>		
6% reduction in specific energy consumption (GJ/t production)	end 2021	  
9% reduction in Greenhouse Gas emissions (t CO <sub>2</sub> e /t production)	end 2021	  
6% reduction in water consumption (m <sup>3</sup> /t production) *	end 2021	  
7.5% reduction in waste to land (metric ton/metric ton production)	end 2021	  
>30% site emissions calculated using market-based emissions factors	2018	  
<b>Sustainable Value Chain</b>		
Revise supplier audit process to include sustainability requirements	2018	  
Define sustainability criteria for Product and Technology Development Projects	2018	  
Undertake initial assessment of active R&D projects against Sustainability Criteria	2019	  
Complete five key supplier audits for each procurement function (at least 1 per region)	2021	  
Complete desktop sustainability assessment of top 10 key suppliers (in each region)	2022	  

\*Water targets under review – see Environment section for details

## Chief Executive's Introduction



**Calum MacLean**  
Chief Executive Officer

### Sustainability highlights

- + Group Sustainability Committee established
- + Launch of new Global Code of Conduct
- + Ecovadis Silver rating for 4th consecutive year
- + Second best year for recordable injury rate on record – 60%+ improvement on three year rolling basis
- + Best ever Process Safety Event rate
- + Strengthening of our employer brand
- + Launch of “We Care” initiative – linking our employees to our communities
- + Move to aligning reporting to GRI Standards and completion of Stakeholder Assessment

Synthomer is a specialist chemical company and one of the world's leading suppliers of aqueous polymers. With strong geographic diversity and product differentiation, we hold leadership positions in a wide range of markets including coatings, construction, textiles, paper and healthcare.

As we look to build the business through product innovation, organic growth and M&A activity, we remain conscious of our responsibility and commitment to doing so in a responsible and sustainable manner. As a leading speciality chemical company, we have well established systems in place to help drive our safety, health and environment (SHE) programmes forward, but recognise that Sustainability covers a far broader spectrum of activities than environmental impact and safety.

Our previous CSR Reports have focused on the mature systems we have in place, but Synthomer has been and remains active in other critical areas such as corporate governance; engagement with and development of our employees and the communities around our operations; and within our Value Chain.

The establishment of our Sustainability Committee in early 2018 and the move to reporting against the Global Reporting Initiative (GRI) Standards will enable us to strengthen our focus, drive improvement and facilitate better communication of our sustainability activities.

We strongly believe our sustainability activities build shareholder value and will drive a positive contribution to our business performance and values. **(GRI 102-14)**



# Corporate Development

## President's Introduction



**Tim Hughes**  
President – Corporate Development



Synthomer is built on its reputation and the trust and confidence of each of its stakeholders – not only our shareholders and employees, but also our suppliers, customers and the wider community and environment in which we operate. At Synthomer we hold the highest standards and work together to protect our values and build an ethical and sustainable business.

Synthomer recognises the significance and importance of being a responsible company. As a leading speciality chemical company, we focus on continuous improvement to enhance the sustainability of everything we do – from developing less energy intensive water-based products to helping customers meet more stringent regulations, to attracting and retaining the best talent in the market through our employee brand.

Via the Group Sustainability Committee I chair, we now focus our sustainability activities around six pillars – our strategy, governance and compliance, people, health & safety and the environment, and our sustainable value chain. In 2018 we focused our sustainability activities on broadening our sustainability reach more widely across

the Group by working to adopt the Global Reporting Initiative (GRI) Standards. This has involved assessing stakeholder expectations, building key performance indicators against which we can be judged, engaging our employees through our 'We Care' initiative, and communicating our progress through this publication of this Sustainability Report. [\(GRI 102-20\)](#)





# Strategy and Business

## Business Overview

Synthomer plc is a speciality chemicals company and one of the world's leading suppliers of aqueous polymers. With strong geographic diversity and product differentiation, Synthomer holds leadership positions in a wide range of markets including coatings, construction, textiles, paper and healthcare. (GRI 102-1, GRI 102-2)

Synthomer is a FTSE250 company listed on the UK Stock Exchange and has its operational headquarters in London, UK, providing customer focused services from regional Innovation centres in Harlow (UK); Marl (Germany); Kluang (Malaysia) and Roebuck (USA). (GRI 102-3, GRI 102-5)

The main shareholder structure is set out on page 90 of the 2018 Annual Report.

The Group structure has been reorganised with effect from 1 January 2019. Three new business groups (Performance Elastomers, Functional Solutions and Industrial Specialities) have been created to better service our customers and markets by leveraging our global product portfolio expanding the reach of our R&D capabilities and by bringing greater operational focus to our global markets. (GRI 102-7, GRI 102-10)

More information can be found in the 2018 Synthomer Annual Report Pages 2-3, 20-27. [https://www.synthomer.com/fileadmin/files/ir/results/2018/Synthomer\\_2018\\_AR.pdf](https://www.synthomer.com/fileadmin/files/ir/results/2018/Synthomer_2018_AR.pdf)

## Acquisitions and Divestments

On 31 January 2018 the Group completed the purchase of the BASF Pischelsdorf business. On 1 January 2018, the Group sold Synthomer Leuna GmbH. and on 28 June 2018 the Group disposed of 51% of its sales entities in Dubai. (GRI 102-10)

In addition to the BASF Pischelsdorf business acquisition, 2018 has seen the largest organic investment programme in the Group's history. Synthomer continues to grow its global manufacturing network and introduce new products, geographical strength and capacity to support future growth.

## Management approach to Sustainability

Synthomer recognises the significance and importance of being a responsible Company, taking into consideration the complete life cycle of our products and for the impact our operations have on people and the environment.

Synthomer considers the issues that are material to its business and seeks to respond to them in a manner appropriate to the interests of all its stakeholders and we are committed to approaching our business in an ethical and environmentally sound manner.

To ensure the safe management and use of its products, Synthomer is committed to sharing relevant health and safety information throughout the value chain. To achieve this, we work closely with our suppliers and customers to fully understand the environmental impact of our raw materials, processes and products on the overall product life cycle. We identify potential improvement areas and focus efforts on delivering those improvements. Growing sustainably is a challenge, but it is one that we fully support. (GRI 103-1, GRI 103-2, GRI 103-3)

The Group's international operations fulfil their responsibilities to record, monitor and make publicly available the potential impact of their activities. In pursuing its corporate strategy, Synthomer's aim is to adopt business practices that are economically, socially and environmentally sustainable, and to promote these to its stakeholders in order to strengthen relationships, share knowledge and encourage best practice.

The Executive is ultimately responsible for sustainability and for setting and agreeing the Group strategy, with day to day management direction provided by Tim Hughes, President – Corporate Development. (GRI 102-20)

In 2017 a review of sustainability management and reporting mechanisms was undertaken, with a view to identifying how to move the company forward in meeting both its own and its stakeholders' expectations in this area. This led in

early 2018 to the establishment of a new Sustainability Committee which meets at least three times a year. This is led by the President for Corporate Development who sits on and reports back to the Executive, with membership made up of Functional Department Heads representing areas such as HR, R&D, Procurement and Corporate Governance, as well as senior members of the corporate SHE Network. There is also active engagement with the Strategic Business Units (SBUs).

Responsibility for other aspects of sustainability is delegated through the Executive, with the President for SHE and Manufacturing being responsible for safety and environmental aspects.

## Risk Management

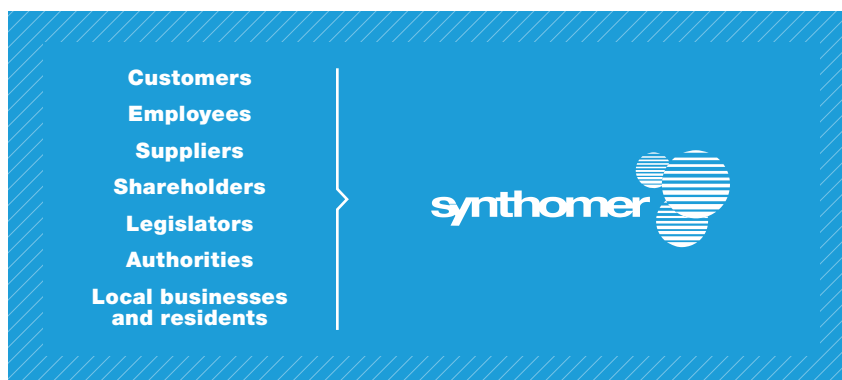
The Group's risk management processes are described in detail on pages 32 to 37 of our Annual Report. They include consideration of the potential impact of corporate responsibility issues on Synthomer's performance. The Group's investment decisions consider appropriate evaluations of the potential consequences for its employees, customers and suppliers and the environment. (GRI 102-11, GRI 102-15)

The Group also recognises the impact that M&A activities can have on its overall sustainability profile and performance, and in 2018 introduced changes to its assessment approach to strengthen our processes for evaluating these potential impacts, risk and opportunities.



### Stakeholder Engagement and Materiality Assessment

As documented in the 2017 CSR Report, identification of key stakeholder groups took place at the end of 2017 and fed into an initial assessment of how the company engaged with those groups and what areas of sustainability were regarded as being materially significant as part of our work to align with the GRI Standards. Seven stakeholder groups were identified where there was direct influence and engagement. (GRI 102-40, GRI 102-42)



Stakeholder	Existing Feedback Collection Tools	Main interest based on existing feedback
<b>Customers</b>	<ul style="list-style-type: none"> <li>+ Customers' Relationship Management System (CRM)</li> <li>+ Customer Surveys</li> <li>+ Customer Requests and Complaints System</li> </ul>	<ul style="list-style-type: none"> <li>+ Quality</li> <li>+ R&amp;D</li> <li>+ Product Safety</li> <li>+ Governance and Compliance</li> <li>+ Customer Satisfaction</li> <li>+ Energy Consumption</li> <li>+ Water Consumption</li> <li>+ Emissions to Air</li> <li>+ Waste Generation</li> </ul>
<b>Employees</b>	<ul style="list-style-type: none"> <li>+ Employee Surveys</li> <li>+ Meetings and Workshops</li> <li>+ Improvement Ideas and Suggestion Systems</li> <li>+ Performance Boards</li> </ul>	<ul style="list-style-type: none"> <li>+ Occupational Health and Safety</li> <li>+ Process Safety</li> <li>+ Employment Conditions</li> <li>+ Development, Training and Education</li> <li>+ Organic Growth/Job Security</li> <li>+ Customer Satisfaction</li> <li>+ Responsible and Involved Management</li> </ul>
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>+ Supplier Audits</li> <li>+ Risk Review Process</li> </ul>	<ul style="list-style-type: none"> <li>+ Price, payment practices</li> <li>+ Compliance</li> <li>+ Occupational Health and Safety</li> <li>+ Process Safety</li> <li>+ Energy Consumption</li> <li>+ Water Consumption</li> <li>+ Emissions to Air</li> <li>+ Waste Generation</li> </ul>
<b>Shareholders</b>	<ul style="list-style-type: none"> <li>+ Independent Reviews</li> <li>+ Board Meetings</li> <li>+ Investor Meetings and AGM</li> <li>+ Written Communications</li> </ul>	<ul style="list-style-type: none"> <li>+ Risk Management</li> <li>+ Business Performance and Growth Outlook</li> </ul>
<b>Legislators</b>	<ul style="list-style-type: none"> <li>+ Engagement through Business Associations</li> <li>+ Dialogue Partner in opinion forming process</li> </ul>	<ul style="list-style-type: none"> <li>+ Governance and compliance</li> <li>+ Safety</li> <li>+ Environmental protection</li> </ul>
<b>Authorities</b>	<ul style="list-style-type: none"> <li>+ Meetings and Conversations</li> <li>+ Site Visits</li> </ul>	<ul style="list-style-type: none"> <li>+ Governance and compliance</li> <li>+ Safety</li> <li>+ Environmental protection</li> </ul>
<b>Local Business and Residents</b>	<ul style="list-style-type: none"> <li>+ Open Days</li> <li>+ Meetings</li> <li>+ Local Residents' Information Requests and Complaints</li> </ul>	<ul style="list-style-type: none"> <li>+ Occupational Health and Safety</li> <li>+ Process Safety</li> <li>+ Product Safety</li> <li>+ Employment Conditions</li> <li>+ Community Support</li> <li>+ Organic Growth</li> </ul>

(GRI 102-43)

## Strategy and Business continued

Following the initial high level assessment at the end of 2017/early 2018, a project was undertaken in the second half of 2018 to develop further the materiality assessment through direct engagement with representatives from the stakeholder groups. This involved development of a web based Stakeholder Sustainability Survey. (GRI 102-21)

The survey asked for views on 22 sustainability topics identified during the 2017 assessment, covering topics directly influenced by Synthomer operations as well as topics linked to the value chain downstream and upstream. All Synthomer operating facilities, labs and offices were taken into consideration.

The survey was submitted to nearly 400 individuals, including representatives of all the stakeholder groups identified, across all the geographic regions where the company operates. The stakeholders asked to participate in the survey were selected by Synthomer experts who are in close contact with the respective stakeholder groups. (GRI 102-43)

The survey was divided into three parts and allowed us to gain a better understanding of our stakeholders' sustainability priorities, and the results confirmed that our approaches and focus areas are largely aligned.

(GRI 102-44)

- + In the first part the stakeholders had to rank their perceived importance of the sustainability topics identified. This part was used for the materiality assessment.
- + In the second part the stakeholder evaluated Synthomer's sustainability efforts on the sustainability topics identified. This and the third part were used to identify areas of improvement or potential concerns.
- + The third part was for comments and suggestions, including identification of any aspects significant to the stakeholders and not mentioned in the main survey.

The response to the survey was very positive, with the reply rate close to 40% indicating a high interest in sustainability among Synthomer stakeholders.

All 22 aspects identified by the original assessment were confirmed as being relevant material aspects (scoring high or very high as regards internal and external

importance) for continued focus going forward. The Sustainability Committee – representing different functional areas including SHE, HR, Procurement and Corporate Governance – reviewed the assessment and revised the allocation of some aspects across the six headline pillars that form the basis for our sustainability strategy going forward. The Targets and Objectives set out in this report are aligned with the priority aspects.

Product Safety (previously included within the Safety Pillar) was felt to be better aligned with the activities associated with our Sustainable Value Chain.

### Materiality assessment (GRI 102-44, GRI 102-46, GRI 102-47)



Pillar	Topic/Aspect	Relevance
Strategy and business	Organic growth	Very important
	Risk management	Very important
	Ethics and integrity	Very important
Governance and Compliance	Responsible and involved management	Very important
	Stakeholder involvement	Important
	Compliance	Very important
People	Employment conditions	Very important
	Employee diversity and inclusion	Important
	Employee development, training and education	Very important
	Communities support	Important
Safety	Occupational H&S	Very important
	Process Safety	Very important
Environment	Energy consumption	Very important
	Water consumption	Very Important
	Emissions to the air	Very important
	Waste generation	Very Important
Sustainable Value Chain	R&D	Very important
	Product Safety	Very important
	Quality	Very important
	Manufacturing Excellence	Important
	Procurement	Important
	Customer satisfaction	Very important

(GRI 102-46, GRI 102-47)

### Material Topic Boundaries

Whilst we have yet not undertaken a detailed review of how we can influence the upstream and downstream supply chain and stakeholders for all the aspects identified above, there are clearly internal and external reporting boundaries to greater to lesser extent within each of the six pillars, and this is reflected and clarified as appropriate in the following sections of the report.

## Plan for 2019 and beyond

During 2019 the Sustainability Committee will review the additional concerns and suggestions from the stakeholder survey to identify potential future focus areas for targeted action. (GRI 102-49)

Some areas being considered include increasing communities support, performing Life Cycle Analysis and review of the UN Sustainable Development Goals.

It is also intended to look at more engagement with employees in the form of a pilot culture survey.

In addition, we will continue to look at opportunities for improving the systems used for reporting and data gathering/analysis to provide greater confidence and provide more transparency and clarity around the identified key material risk areas.



## Governance and Compliance

### Management Approach

Ensuring and demonstrating a high standard of effective and compliant corporate governance is a key priority of the Group and expectation of our stakeholders, and fundamental to our being a trusted and long-term successful business. (GRI 103-1)

The company follows and complies with the UK Corporate Governance Code. In 2018 Synthomer was in full compliance with the 2016 Code other than in respect of Board balance which was addressed in September 2018 by the appointment of Holly A. Van Deursen, replacing Jinya Chen who retired from the Board on 31 December 2017. (GRI 103-2, GRI 103-3)

We have policies and practices well in hand to implement the 2018 Governance Code and as part of this work Alex Catto has been designated by the Board as the lead non-executive director to undertake workforce engagement.

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Full details of Synthomer's Governance structures can be found on pages 58 to 66 of the 2018 Annual Report. (GRI 102-18)

The Synthomer Board responsibilities include policy setting for safety, health and environmental matters, business conduct, diversity and human rights, recruitment and employment, risk management and treasury.

The Board met nine times during 2018, and sustainability aspects are discussed at several of these, with those relating to safety and environmental performance and related initiatives reviewed at each meeting.

The Executive Committee meet monthly and are responsible for ensuring effective delivery of the agreed strategy and meeting the policy commitments.



### Code of Conduct

2018 saw significant activity in this area as Synthomer published its new Code of Conduct, drawing together all its key Policies in one easy-to-read and interactive document. (GRI 102-16)

Our Code reflects both how we work together and with third parties and exemplifies our beliefs and values.

All employees have been issued with the Code, and it is publicly available on our website at: <https://www.synthomer.com/code-of-conduct/>

The policies are in place to ensure our daily business is conducted in a professional and responsible manner. These policies play a key role in maintaining our reputation with our internal and external stakeholders. They also set out the standards to which we hold ourselves, our employees and our business partners.

Our values are visible in all corporate communications and are prominently displayed at all Synthomer sites.

Around the globe we have multiple ways in which we communicate our values in an engaging way and bring our values to life including induction processes, training interventions, communications and awards and recognition campaigns.

All the Group's employees are encouraged to measure their activities against our long terms goals and to work towards achieving them. Managers in particular are expected to use these goals when setting targets for themselves, for their teams and for the staff who report to them.



### Corruption and anti-competitive behaviour

Synthomer is committed to complying with the laws and regulations of all the countries in which it operates (including those covering corruption and anti-competitive behaviour). This applies whether Synthomer is acting directly in a country through employees, or indirectly through agents, distributors or other intermediaries. Alongside the Code of Conduct roll-out, new guidance was published on Bribery, Corruption and Tax Evasion and Competition Law.

As noted on page 36 of our risk management summary in the Annual Report, in addition to the above we have terminated all business activities in certain sanctioned countries to avoid the risk of breaching trade sanctions but continue to monitor all our customers using trade compliance tools.

[https://www.synthomer.com/fileadmin/files/ir/results/2018/Synthomer\\_2018\\_AR.pdf](https://www.synthomer.com/fileadmin/files/ir/results/2018/Synthomer_2018_AR.pdf)



## Ethics Hotline

At Synthomer we always encourage people to speak up about any concerns they may have about unlawful or unethical behaviour, or any breach of the Synthomer code of conduct. (GRI 102-17)

Employees are encouraged to speak with (in the first instance) HR or Group Legal if they have any concerns or questions.

In addition, 2018 saw the launch of a third party hosted confidential hotline (available both online and via telephone) for employees to use in the event of anyone feeling they had concerns bringing an issue to the attention of their line manager or a member of HR. (GRI 419-1)

No material issues were reported during the year under the established whistleblowing procedure.

## Human Rights

The Group is committed to the principles of having a diverse workforce, fair culture and work environment, as set out in our Group Policy on equal opportunities, diversity and human rights. The new Code of Conduct reasserts our commitment to an open culture and inclusive workplace, free of harassment and discrimination based on race, age, gender, sexual orientation, disability, religion or any other factor protected by law, and to ensuring the rights of all those working with or for us.

## Modern Slavery Act

Synthomer is committed to ensuring that there is no modern slavery in our business or any of our supply chains. Following on from an initial risk assessment on supplier due diligence processes, Synthomer has committed to and has begun the process of implementing an advanced sourcing tool that will streamline its onboarding processes. In 2018 Synthomer successfully implemented this sourcing tool across all European sites and will continue the rollout into all Asia sites by the end of 2019. The sourcing tool now requires suppliers to provide Synthomer with a copy of their Modern Slavery Act Statement so that appropriate assessments on the risk of modern slavery in the supply chain can be made by Synthomer.

In addition to this, in 2018 Synthomer conducted a review of its purchase terms and conditions and has begun to update them to include a clear obligation on our suppliers to support and comply with the Modern Slavery Act.

In 2019 Synthomer will look to create a global strategy to further strengthen its methodology and processes for identifying and eliminating modern slavery in its supply chains.

Our most recent Modern Slavery Act statement is available here: <https://www.synthomer.com/company/corporate-responsibility/group-policies/>

## Voluntary Commitments

The Code of Conduct described above is our main focus point for ensuring responsible corporate governance.

In addition, Synthomer remains committed to both the global chemical industries' Responsible Care® (RC) initiative and to the principles of sustainable development (SD) as set out in the UK Chemical Industries Association (CIA) SD guiding principles, to which we have been a signatory since 2005.

This commitment was re-asserted in 2017 when the Group Chief Executive endorsed the updated UK CIA Responsible Care® Guiding Principles. These are shared across all operating locations and further endorsement by local site managers.

[https://www.synthomer.com/fileadmin/files/company/group\\_policies/English/Responsible\\_Care\\_Guiding\\_Principles\\_2017.pdf](https://www.synthomer.com/fileadmin/files/company/group_policies/English/Responsible_Care_Guiding_Principles_2017.pdf)

As of this year our reporting also complies with the Global Reporting Initiative (GRI) Standards and we have for several years reported climate change and water performance to CDP (see Annex for more details). (GRI 102-12)

## Training

The following summarises the current scope and status of governance and compliance related training programmes, comprising a mix of face to face training and assessed e-learning modules. The frequency of training for the first two modules is based on a risk exposure rating for the employee group in question:

(GRI 205-2)

Risk Group	Anti-Bribery & Corruption	Competition Law
<b>High</b>	<p><b>Employees who:</b></p> <ul style="list-style-type: none"> <li>+ Interact regularly with government officials, agents, representatives of Synthomer non-operated joint ventures; or</li> <li>+ are involved in procurement, supply chain, agency &amp; distribution and any other form of contract negotiation, or M&amp;A activities and business development programmes.</li> </ul> <p>And where the interaction may involve high risk jurisdictions – defined by current Transparency International Corruption Perception Index with a score of equal or less than 55</p>	<ul style="list-style-type: none"> <li>+ Employees in sales, marketing, procurement or commercial leadership roles who make business decisions relating to contracts, pricing and business strategy.</li> <li>+ Employees involved in benchmarking, joint venture (JV) engagement, M&amp;A.</li> <li>+ Employees representing Synthomer at trade associations/industry events/meetings attended by Synthomer's competitors.</li> <li>+ Personnel in sales, marketing, procurement of any business with a high market share</li> </ul>
<b>Medium</b>	As above but where not in high risk jurisdictions	<ul style="list-style-type: none"> <li>+ Sales and marketing personnel who do not make business decisions but are involved in process execution</li> <li>+ Procurement personnel with some ability to make business decisions relating to suppliers, pricing and sourcing</li> <li>+ Those involved with the commercial terms for procurement of goods and services</li> <li>+ Seconded to joint ventures where the JV or JV partner is not a competitor.</li> </ul>
<b>Low</b>	All other employees	All other employees

Those employees within the "low risk" groups are not required to complete these two training modules.

Training Unit	Target Group	Face-to-Face	e-learning
Anti-Bribery & Corruption	High Risk Medium Risk	Once every 2 years Once every 3 years	Annually Every other year
Competition Law	High Risk Medium Risk	Once every 2 years Once every 3 years	Annually Every other year
New Code of Conduct	All Employees	Initial	Annual from 2020

% Training complete	End 2017		End 2018		End 2019 Q1	
	Target Group	% Trained	Target Group	% Trained	Target Group	% Trained
Anti-Bribery & Corruption	937	80%	903	91.5%	904	94.1%
Competition Law	465	75%	493	85.8%	496	90.3%
New Code of Conduct *	N/A		N/A		966	62%

Note: The variances in target totals for each period reflect changes to the organisational structures and associated employee responsibilities.

Face-to-face training on Competition law was undertaken in 2018 with the entire European Sales, M&A and R&D team.

We are currently in the process of putting a new E-learning system in place that will incorporate the two existing modules.

\* Code of Conduct training has been completed for our Head Office personnel, plus management in Malaysia, Italy, the USA, Spain and our largest German site in Marl. Further training sessions are planned to cover all employees during Q2 and Q3 of 2019.



## People: Our People and Communities

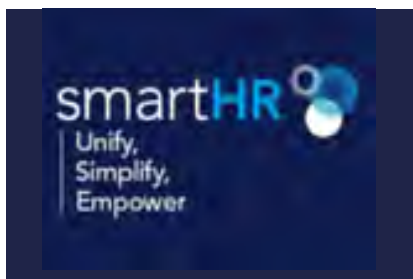
### Management Approach

Synthomer is committed to developing our people to help them fulfil their potential, and in engaging with our communities in a positive manner. (GRI 103-1, GRI 103-2, GRI 103-3)

Our People agenda has made further progress in 2018. With mentoring, graduate recruitment, leadership and learning development programmes established, and a strengthening employee brand, we have made good progress in all pillars of our framework to create an open and positive work environment.

The Global HR Director is responsible for implementing programmes of work to deliver on the Group Strategy, including those linked to Leadership and Succession Management, supported by Divisional and Regional HR leads. He reports to the Executive through the President – Industrial Specialities, M&A and Global HR.

To support a more global approach to HR, 2018 saw the launch of our SmartHR System, empowering employees and managers to work together more effectively. Further integration of HR related functions within SmartHR is planned through 2019, including incorporation of our electronic performance appraisal system.



2,956  
employees

21%  
female

100%  
Nearly 100% Full Time employees

90%+  
under Permanent Contract

67%  
under Collective Bargaining Agreements

(GRI 102-8)

(GRI 102-41)



synthomer

## Diversity

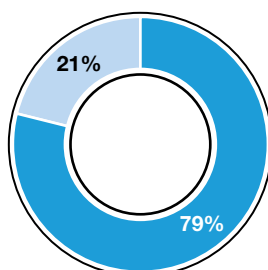
Diversity is one of Synthomer's Core Values, and we remained focused on increasing diversity within the Group. We continue to attract and retain employees from a wide variety of national and cultural backgrounds.

In the UK, where we have around 500 employees, we have people from over 20 different countries represented within our workforce. (GRI 405-1)

Whilst Synthomer operates in a typically male dominated industry 21% of our employees are female and the rate at which we are attracting female talent continues to increase. In many of our scientific roles we have achieved a gender balance, and new recruits to our European Graduate Scheme and participants in our Synthomer Talent Development Programme comprised of approximately an equal proportion of female and male employees.

We were also pleased to appoint Holly Van Deursen to our Board of Directors in 2018, our second female Non-Executive Director.

	Male	Female	Total
Board	7	2	9
Senior management	43	4	47
Employees	2,301	606	2,907



- Male
- Female

Synthomer has complied with UK Gender Pay Gap legislation and has a Diversity & Inclusion action plan in place. 2018 saw a reduction in the median pay gap from 13.7% down to 10.8% and we expect to see this trend continue as we further improve our HR practices and the development of our employees.

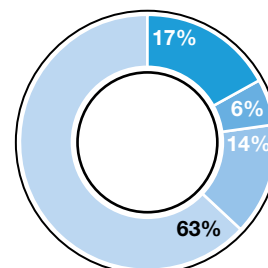
Copies of the Pay Gap Report can be downloaded from the Synthomer website via: <https://www.synthomer.com/company/corporate-responsibility/group-policies/>

In 2019 the Board and our Executive team will be undertaking training to further support our Diversity and Inclusion agenda.

## Attraction, Retention and Employee Development

Synthomer seeks to attract and develop talent from all backgrounds to help our sustainable growth. Aligned with our focus on maintaining a strong pipeline of new products, 6% of our global workforce are employed within our R&D function.

Headcount by Function



- Administration
- R&D
- Commercial
- Operations

In 2018 we continued to offer a bonus scheme that extends to all levels in our organisation, not just to senior leaders.

Given our global focus on delivering and sustaining world class levels of Safety, Health and Environment (SHE) all employees have some elements of their bonus based on safety performance measures which pay out if targets are met, irrespective of Group financial performance. For 2019 it is planned to increase the proportion of the bonus that relates to our performance against occupational and process safety targets, reflecting the importance we put on safety.

Synthomer's Asian HR Function was formally recognised by several external agencies for the key initiatives supporting continuous commitment to the development of its human talent. Throughout the year there were a range of HR key initiatives delivered and it was good opportunity to externally benchmark these against other industries in the country. This year the HR Team have participated in three external HR awards which were organised by the Ministry of Human Resource, IChemE and MIHRM respectively.

Moving into 2019 our existing appraisal and performance system for employees will be integrated within SmartHR. Globally 1,337 employees received appraisals in 2018, representing 45% of the total workforce. (GRI 404-3)



As outlined in the Annual Report, we have been actively reviewing the organisational structure of the business, transitioning to our new global business division model. This has also included changes to centralised functions such as Procurement, and has led to an increase in recruitment and employee turnover. The turnover rate for 2018 is estimated at 10%. (GRI 401-1)

### Training

All employees receive as a minimum relevant safety and environmental related training, including regular training on our SHE Rules and Principles, standards and procedures.

In addition we provide support for employees seeking formal qualifications, including with part-time university study for degree or masters qualifications where this fits with career progression and development plans, and with vocational or short-course study to enhance technical and engineering skills, and to meet Continuing Professional Development (CPD) needs.

We regard quality, targeted training as more important than having any specific

targets linked to absolute training hours, but recognise it is still a relevant metric to show our commitment to training. Whilst there is some tracking and monitoring of training hours, with online training record systems now established in a number of locations, we do not currently have a comprehensive centralised system in place.

As part of starting to report to GRI Standards, the following is an estimate of overall general training hours for our employees. We will be seeking to improve the clarity and accuracy of this data for future reports. (GRI 404-1)

Division/Region	General Training Hours	FTE Employee Numbers*	Hours per Employee
Europe	13,951.5	1,121	12.5
Specialities	15,359.5	773	19.9
Asia	20,749.5	741	28.0
Americas & Middle East	5,401	173	31.2
<b>Group</b>	<b>55,462</b>	<b>2,808</b>	<b>19.8</b>

\*Different to headcount reported above which reflects year end status.

### Leadership Development

In 2018 we relaunched and expanded our European Graduate Scheme with 13 new recruits joining our 2018 cohort orientation event in October. Scheme participants have joined us in several functions including Manufacturing, Engineering, Finance, R&D, Procurement and Commercial.

This year also saw the launch of our new Synthomer Talent Development Programme: a 12 month structured development programme aimed at providing existing employees at an early stage of their management career with an accelerated development experience that includes workshops, virtual learning events, 360 degree feedback and an opportunity to work with a mentor drawn from our senior leadership team.

Jennifer Peake, as one of our Talent Development Programme members, won the Prestigious National Chemical Industry Association's (CIA) Young Ambassador of the Year Award in June and will lead the CIA's Future Forum for 12 months from September 2018, playing a vital role in representing the ideas, concerns and aspirations of young people in the chemical industry

**“Being given the opportunity to represent early careerists across the Chemical Industry has been a great experience so far, and one that I would not have received without the support and guidance that I have had throughout my career so far. I am really looking forward to working on increasing engagement of early careerists on important issues and challenges within our industry.”**

Jennifer Peake  
Technical Manager, Industrial Specialities



## “We Care”

Synthomer engages with its employees and communities in various ways on sites around the world. To heighten awareness, visibility and promotion of these activities, the Group launched its “We Care” initiative. CSR/sustainability ambassadors rolled out the campaign on several sites, aimed at creating engagement, inspiring opportunities and empowering Synthomer employees who are passionate about making a difference to those around them to reach out and champion work in this area with Group support. During 2018 over 25% of operating sites reported active positive engagement with their local communities. (GRI 413-1)

In 2019 We Care will be expanded as a key part of our sustainability identity externally as well as internally, highlighting promotion not just of our community engagement but our focus on more sustainable and environmentally friendly products.



## We Care about our Communities

Amongst the activities supporting our communities in 2018 were:

- + Our Head Office charity auction raised £20,000 for the Make a Wish Foundation
- + Collections for several charities and day care centres, including hundreds of items collected in a “reverse Advent Calendar” appeal in Harlow and a “Wish Tree” campaign across our German sites supporting local hospitals
- + Kuala Lumpur Office members engaging in several fund-raising activities to support the “Lend a Hand” program in Malaysia, supporting shelters for abandoned or neglected children

## Our commitment to Science and Education

We continue to be active supporters of the SCI (Society of Chemical Industry) with Robin Harrison, Global Innovation Director, on the Board of Trustees and several of our senior leaders active committee members.

In 2019 we will again be a lead sponsor of the Bright SCIdea Challenge having been a sponsor of the launch of this initiative in 2018. This competition is aimed at university students and developing entrepreneurial skills. The competition asks participants to develop innovative scientific ideas and present them as part of a business presentation to a panel of industry experts.

We are also active in supporting the SCI “mid careers workstream”: a group of industry leaders looking at ways to develop the careers of scientists’ mid-way through their careers.

Our CEO, Calum Mclean, is a member of the Chemical Industry Association’s (CIA) Chemistry Council; a group comprising some of the most senior leaders in the UK Chemical sector with a focus on understanding and advancing the strategic needs of the industry in the UK.

In 2018 we continued to support academic study in the form of sponsorship of PHD and Masters’ students in the UK and Malaysia.

Our business in Malaysia hosted 38 undergraduate industrial placements in 2018 and our R&D staff worked with

several Malaysian Universities to contribute to the development of their syllabuses and in delivering lectures. We supported Universities, Colleges and Secondary Schools across Malaysia by supplying Latex Gloves for use by staff and students.

As polymer industry technical representative, we were appointed by Malaysia Institute of Chemistry to join the JTC-IKM Working Committee under instruction of Malaysia Qualification Agency, MQA to draft Malaysia chemistry degrees program standards, which will serve as primary reference for all the universities in Malaysia when they form the syllabus for chemistry degree program. The standard will be used as mandatory reference for the accreditation of chemistry degree program by MQA. We are the only representative appointed from polymer industry.

Synthomer once again participated in the Chemistry at Work showcase in the UK. This has now become an annual event in the Essex Local Section of the Royal Society of Chemistry Outreach programme, with members of R&D presenting on Synthomer products and processes, and actively promoting STEM careers.

To help support diversity within STEM careers, as part of the 2018 national “Girls and Boys Day” in Germany, employees’ children came to the Marl Office and Marl Chemical Park to experience professions where fewer women or men work. We are proud to support this initiative aimed at school children aged between 10 and 15. The event included time spent in our Laboratories and Manufacturing facilities.



## Safety

### Ensuring Safe Workplaces and Operations

Management of Safety, Health and the Environment (SHE) is the most mature aspect of the Group's sustainability activities and remains a critical material aspect for both internal and external stakeholders. Having safe plants is a basic expectation of sites' license to operate, in line with the Synthomer philosophy that "we **always** have time to work safely".

(GRI 103-1, GRI 103-2, GRI 103-3)

The President – Operations has Executive Committee responsibility for internal SHE performance and management. Under the new organisational structure described in the Business Overview on page 6, as of 1 January 2019 he is supported by a Global SHE Director who leads a small corporate team, as well as a SHE Network incorporating Heads of SHE for the three new business divisions who support the site leadership teams and local SHE management.

SHE improvement objectives and targets form a pillar in sites' Manufacturing Strategies, enabling better focus and assessment of how these activities fitted with the main Business Plans. Progress with these plans is monitored by the Executive Committee at Group level and regularly reported to the Board.



### We always have time to work safely

In line with our SHE Policy, the Board, Chief Executive and Executive Committee are fully committed to improving SHE performance and engaging and involving employees at all levels in all locations in our SHE programmes. Effective SHE Leadership to deliver SHE performance is a primary duty and expectation of management at all levels in the Group, aligned to our three long term goals:

- 1. To have no accidents or incidents;**
- 2. To have no adverse impact on the health of those who work in, or live near our operations, nor on the health of those who use our products; and**
- 3. To minimise any environmental burden created by our activities.**

### Systems, practices and programmes

#### SHE Management System

The goals of Sustainable Development and Responsible Care® are integrated within Synthomer's SHE Management System (SHEMS) and form the basis against which we judge our performance and our plans for improvement.

SHEMS is embedded in the Group-wide Document Controller system and is therefore available to people at all levels across the company. It continues to be extended to cover new areas, makes clear the standards sites are expected to achieve and provide guidance on how they should meet those standards – compliance to the Standards is required of all site locations, employee and contractors. The System is aligned with recognised standards such as UK HSE HS(G)65 and OHSAS18001/ISO 45001. 4 sites have safety management systems certified to OHSAS 18001 as required by national legislation. (GRI 403-1, GRI 403-8)

#### Reporting and Communication

Synthomer has several multi-lingual systems available to all employees to enable the collection, analysis and presentation of leading and lagging indicators of performance relating to safety (occupational and process safety), health and the environment, as well as chemical hazard data, exposure risk assessments and injury, incident and near miss reporting and action management at Group, Divisional and site level. (GRI 403-2)

We use our Accident and Incident Management System database (AIMS) to record and monitor even minor process incidents and upsets as we recognise they could lead to significant incidents under different circumstances. These records are analysed and the lessons shared, internally and externally.

Key SHE performance indicators and SHE audit results are reported to the Board, the Executive Committee and to the regional management meetings on a monthly basis.

Safety Committees are established on all sites, with the expectation that there are at least quarterly meetings involving management and workforce representatives to discuss safety issues and share information. (GRI 403-4)



### Key Activity Summary

The table below outlines some of the health & safety management practices and activities undertaken in 2018 and planned for 2019.

Key SHE programmes	2018 SHE key actions	2019 SHE key focus
<b>Group's Safety, Health and Environment Management System (SHEMS) standards and policies</b> (GRI 403-1)	Completion of revised Lock-Out Tag-Out guidance; development of self-assessment questionnaires to assist internal audit process.	Supporting sites in meeting our Standards through generation of "Statements of Essential Requirements" – setting out in more detail what good compliance looks like.
<b>Group SHE audits</b> (GRI 403-2)	New audit cycle with continued process safety focus; move to risk based frequency of auditing. Eight audits completed in 2018.	Further Self-Assessment Questionnaire (SAQ) audit activity, increased networking/cross-site auditing to share best practice
<b>The Group Accident and Incident Management System (AIMS)</b> (GRI 403-2)	Effective use of lessons learnt and site review of high potential incidents to help prioritise where to focus resource to improve performance.	
<b>SHE training, communication and support</b> (GRI 403-5)	<p>Development of modular in-house process safety training tailored to our technologies and processes.</p> <p>Increased level of support vs. audit to achieve targeted improvements in performance based on findings from last audit cycle.</p> <p>Working with sites to develop a programme of standardised SHE routines to back-up all other major SHE initiatives.</p>	Full roll-out of internal Process Safety Training, linked to bowtie and barrier analysis of sites' own identified significant hazards
<b>Process Hazard Assessment (PHA)</b> (GRI 403-2)	<p>Continuation of PHA revalidation process across lower risk profile sites.</p> <p>KPI tracking of significant actions from 2017 PHAs as high priority SHE Improvement Plan items – &gt;50% all high priority actions completed.</p>	Completion of High Priority PHA actions

### Training and Competence Assurance

Training is provided to all employees on our SHE Rules and Principles, and all sites train employees on critical procedures, comply with legal obligations around safety training, and support employees with gaining relevant external qualifications, for example with regard process hazard assessment techniques, and engineering related qualifications such as CompEx training for technicians undertaking maintenance on equipment in classified hazardous areas. (GRI 403-5)

During 2018 Synthomer also developed in-house training modules covering process safety which have a focus on specific hazards and risks of our processes, making it more relevant and interactive for our employees. This was delivered to several sites across the Group at the end of 2018 and into Q1 2019, with most other sites scheduled to receive this training in 2019.

Work continues looking at line manager competency in relation to process safety, and there were ongoing site manager and site engineer competence assurance assessments undertaken by regional Operations Directors and the Group SHE Manager.

From Q3 2018 this assurance process was extended to also include SHE Managers.

### Process Safety – Strengthening our Barriers

The Process Hazard Assessment (PHA) Revalidation process begun in 2017 continued on several sites in 2018, focussed on site operations with major accident hazard potential. In addition, completion of “High” rated improvement actions is now a corporate KPI, and 50% of the total actions identified so far had been completed by the end of 2018, covering a mix of procedural and engineering related activities – alongside our major plant expansion projects, the most significant capital expenditure in the Group goes on improving our assets and safety systems. (GRI 403-2)

In addition, the company continues to review and revise internal standards, procedures and guidance, drawing on recognised good practice and international technical standards.

### SHE audit programme

Assurance of our management systems involves site level internal auditing of compliance against our SHE Standards over a 3 year cycle, semi-independent Group SHE auditing of all operating sites compliance with key Standards and assurance checks of the other areas; and external auditing for the 4 sites that are certified to OHSAS 18001. (GRI 103-3, GRI 403-2)

All new sites acquired by the Group are subject to initial assessment against Group Standards, with targeted action plans and support programs developed to address any gaps found. 4 sites received their first full audit in 2018.

The Group SHE audit process forms a key part of the Group’s risk management strategy and 2018 saw the start of a new three year audit cycle for our manufacturing plants, with a central team of specialist chemists and engineers focussing on key management system areas – as a minimum, Permit to Work, Management of Change, Operating Procedures, Process Safety and Asset integrity – and deep dive process safety audits of major accident scenarios.

Sites are ranked against an internal banding system based on both compliance with the Standards and practices seen on the site. Audit findings are discussed with the management teams and corrective actions for any significant issues agreed and supported by the Divisional Operations VPs and Directors during the feedback presentations.

Improvement programmes are implemented and where best practices are identified these are shared with other sites.



## Learning Lessons - Black Book

Synthomer has always been committed to ensuring we learn lessons from both external and internal incidents.

In 2018 we introduced our “Black Book”, a collection of lessons learned from across the Group highlighting 20 incidents and significant near misses from the past two decades, using the bowtie format to highlight which barriers that should have been in place where either missing or failed. (GRI 403-5)

All Operating Site Managers were issued with copies and on the anniversary of these incidents have been tasked with revisiting the events and, where applicable, the

response that they made to any original lessons learnt to validate that the actions taken have been embedded.

For a significant number of sites, it is the first time these incidents will have been reviewed, and here communication, discussion and review are identifying both good practices to share (where equivalent barriers are strong), and potential weaknesses where action is needed. These events will then continue to be revisited on an annual or bi-annual basis to ensure we embed the learning and strengthen corporate memory.

### Manufacturing Excellence, asset protection and Insurance Inspections

Another aspect of assurance is through property surveys undertaken in partnership with our insurance brokers to identify opportunities to improve how we protect our assets. This gives visibility and confidence to the insurers that our operations are being effectively managed to improve process safety and minimise the risk of loss. The process also allows us to control insurance premiums and focus capital investment where we jointly identify the greatest potential benefits to both insured losses and business continuity.

In 2018 eleven property surveys were completed of Synthomer sites. This will continue as we include further recent acquisitions in addition to periodic reviews of long term holdings. Follow up visits by our insurers and Synthomer specialists are routinely used to help the sites implement and embed strong practices and robust improvements.

### Embedding of SHE Routines

Following implementation of our Permit to Work (PTW) and Management of Change (MOC) improvement programme in 2017, 2018 saw increased focus on tracking and learning from “Fundamental Issues” identified during monitoring, and the establishment of standardised monthly and quarterly routines to formally monitor progress at site level.

Alongside further evolution of our web based KPI Dashboard, more structured and regular review are allowing sites and the Group to quickly identify performance trends and potential areas of weakness, as well as showing positive improvements as the effects of some of our actions – such as “Fundamental Issues” lessons learned, improved training on specific risk hazards – are realised.

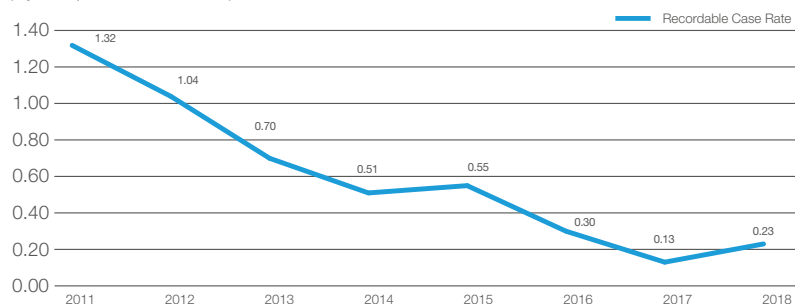
## Occupational Safety Performance

+ Recordable injury case rate (RCR) of 0.23 per 100,000 hours worked against a target of 0.25

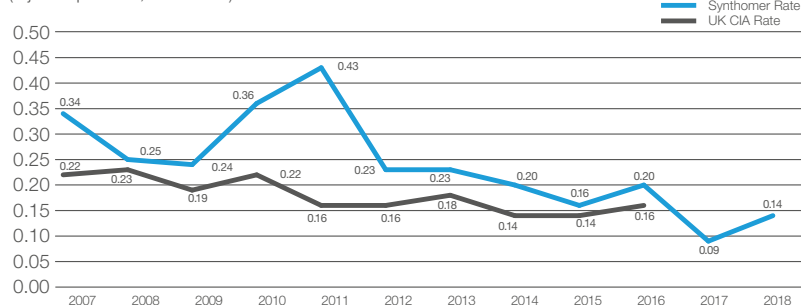
+ >3 day lost time injury rate of 0.14 per 100,000 hours worked

Whilst they are lagging indicators, injury rates remain a key comparative measure of companies' safety performance.

**Figure 1 – All Recordable Injury Case Rates**  
(Injuries per 100,000 hours)



**Figure 2 – >3 day LTI Rate**  
(Injuries per 100,000 hours)





Since 2015 we have used the “recordable injury case” rate (or RCR) as our key metric, aligned with the widely reported US OSHA Standard. Recordable injuries are taken as any requiring more than first aid treatment. For historical reasons linked to UK HSE reporting metrics, measures are per 100,000 working hours, rather than the OSHA standard of 200,000 hours.

2018 regrettably saw an increase in the number of recordable injuries up to 16, from the record low of 9 in 2017, of which 10 were >3 day lost time injuries. The associated frequency rate of 0.23 per 100,000 hours worked was the 2nd best rate in the company's history.

Since 2016 we have also collected data on days away for employee lost time injuries. In 2016 a total of 139 employee days were lost (2.9 days lost per 100,000 working hours). This dropped to 54 days in 2017 (1.1 days lost per 100,000 working hours) but rose significantly in 2018 to 292 days. This increase related to two injuries – one where a sprained ankle injury was not immediately reported, and the employee involved subsequently had an extended time away, and another where a lab employee severed tendons putting their hand into a waste glass bin and required surgery.

Our objective is to have no accidents or injuries on our sites, and analysis of the injuries reported found a significant number related to “line of fire” incidents involving contractors. In 2019 we will be looking to improve our contractor management, induction and permit systems, focussing on permit acceptor training, including our “Line of Fire” and high hazard work guidance, now expanded to include videos on hot work and confined space entry work.

(GRI 403-9)

## Occupational Health and Wellness

Synthomer sites and regions are active in promoting and supporting employees in improving their mental and physical health. The following are a few examples of the activities that ran during 2018. (GRI 403-6)

Aligned with two of our SHE Principles - ‘Look After Yourself and ‘Look After Each Other’ - this year we promoted the ‘Be Supported’ campaign, which aims to support employees and their families facing difficulties by providing a confidential helpline, and useful information via a website. In partnership with AXA PPP Healthcare we aim to give every UK employee access to information, support and counselling to help with any aspects of daily work and home life that have become challenging. The service includes guidance when experiencing a medical issue as well as practical impartial information and support on everyday matters such as dealing with debt, buying a house and consumer rights.

As part of our health management programme in Germany, we offered 12-week running coaching for beginners and advanced runners. A total of 33 employees signed up to take advantage of the opportunity to start running or improve their running training under the expert and professional guidance of running coach Axel Reich.

We also continued to run health and wellness sessions in Germany for our Shift based manufacturing staff on the topics selected by the employees beforehand, including nutrition and meal design during shift work, sleeping and relaxation. Sessions included theoretical input from external experts and practical learning.

We are pleased to report that there were no cases of ill health or disease attributed to occupational factors reported during the year. (GRI 403-10)

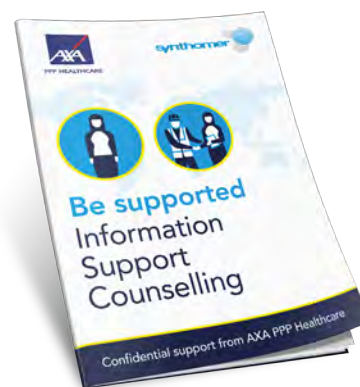
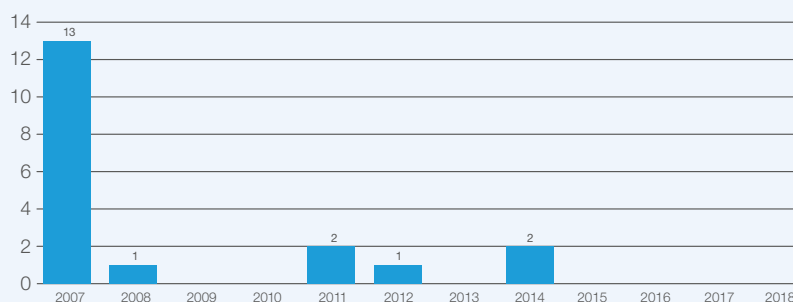


Figure 3 – Work related illness cases



### Process Safety Performance

Alongside our auditing and site support activities we have since 2015 recorded, rated and tracked process safety events (PSE) using a 4 tier scoring system where tier 1 or 2 incidents (tier 1 being more severe) meet the definition for a "Reportable PSE" from the International Council of Chemical Associations (ICCA). We have chosen to adopt the Globally Harmonised System of classification to determine threshold limits for reporting losses of hazardous chemicals as PSE – this aligns us with the approach of the UK and European chemical associations (CIA and CEFIC). (GRI 403-2)

Targets for this and the recordable case rate form part of the Group Bonus Scheme for all employees.

- + Best ICCA Process Safety Event rate since tracking started of 0.14 per 100,000 hours
- + No incidents resulting in serious injury or damage

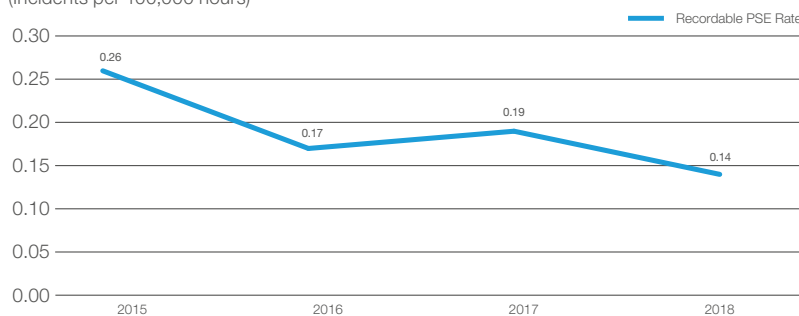
There was a 23% improvement in the PSE rate, with 10 incidents reported compared to 13 in 2017, and thankfully none of these incidents resulted in serious injury.

The most severe incident related to loss of hydrochloric acid due to corrosion in a storage tank. The spill was contained and there was no injury or environmental impact. All the incidents fell into the lowest severity banding defined in ICCA guidance. Against our internal tier ratings 4 of the 10 incidents were rated Tier 1 owing to the material loss being more than 10x the reportable threshold.

Appropriate corrective action was identified for all the incidents noted above, including reviews of systems for tank inspection, and ongoing focus on improving engineering standards and assessing our safety critical tasks using human factors analysis techniques.

## Best ICCA Process Safety Event rate since tracking started of 0.14 per 100,000 hours

**Figure 4 – Recordable Process Safety Event Rate**  
(Incidents per 100,000 hours)





# Environment

## Managing our environmental responsibilities

The Group is committed to minimising the environmental burden of our operations, targeting reductions year on year by managing and monitoring our performance, and reporting on the environment impacts that we measure. We believe in exceeding our statutory obligations where possible and in working with local regulators to achieve that goal. **(GRI 103-2)**

Environmental Management forms part of our overall Safety, Health and Environment (SHE) management strategy, as described in the Safety section of this Report, and is managed through our SHE Management System (SHEMS).

Environmental work programmes are focused on ensuring both legal compliance and driving continual improvement.

All operating sites have ISO 14001 Environmental Management System Certification, and the Austrian site in Pischelsdorf will be incorporated into the Group's matrix ISO 14001 certification during the next certification cycle. Our sites in the UK, Germany and the Czech Republic have also obtained ISO 50001 Energy Management System certification.

Site, regional and group performance is monitored on a periodic basis by operational management and reported quarterly to the Synthomer Group Board. The rolling out of a new internally developed reporting platform in 2018 has allowed for some increase in transparency and monitoring of performance across sites and divisions.

## Achieving Sustainable Improvement

2018 was a challenging year with regard to meeting our stated environmental performance targets. The figures reported in this section reflect the acquisition from BASF in Austria (from Feb 2018) and the full year impact (compared to 10 months in 2017) of the Specialities site in Belgium.

**(GRI 103-1), (GRI 103-3)**

Achieving the 2021 targets set last year remains our objective, but the 2018 performance in some areas has led us to identify the need for better identification of the greatest opportunities to improve group performance through targeted focus on the "Tier 1" sites contributing most to the overall figures.

The Group also has better awareness and recognition of the impact that M&A activities

can have on its overall sustainability profile and performance, and in 2018 introduced changes to its assessment approach to strengthen our processes for evaluating these potential impacts, risk and opportunities.

Several adjustments to the 2017 baseline data have been made following internal review and verification – in particular all intensity figures have been revised following a review of how the Czech plant's production sales volumes had been accounted for in the calculations. This has led to an increase in the intensity factor numbers for 2016 and 2017. Other changes are noted in the following sections where relevant. Detailed performance data can be found in the table on page 29.

Metric	2017 Baseline	2021 Target	2018 Actual
Energy (GJ per tonne)	3.541	-6.0% (3.328)	3.524 (-0.5%)
Emissions (t CO <sub>2</sub> e per tonne)	0.201	-9.0% (0.183)	0.198 (-1.8%)
Water (6% reduction in consumption per tonne)	3.793 (withdrawal)	-6.0% (3.452)	3.904 (+2.9%)
Waste to landfill (kg per tonne)	3.57	7.5% (3.30)	5.08 (+42%)

"Synthomer is committed to minimising the environmental burden of our operations"

## Energy

Effective energy management is core to ensuring long term sustainability of our business, and energy use by the Group remains a key performance indicator, both from its associated environmental links to emissions, but also from an economic standpoint. Since 2012 consumption figures have included energy embedded in site services such as compressed air and nitrogen, cooling systems and cooling water where these are bought in rather than generated by our own plant. This helps not only with fairer energy load comparison between sites but also allows for a more accurate estimate of Scope 2 related greenhouse gas emissions.

(GRI 103-1), (GRI 103-3)

Metered energy consumption is reported and monitored on a monthly basis through our Manufacturing Excellence portal, and benchmarking across plants with common technologies is being used to identify potential gaps and improvement opportunities.

### 2018 Performance

- + Overall primary energy consumption increased 3.9% to 5,560,467 GJ
- + Specific Energy Consumption (SEC) decreased 0.5% to 3.524 GJ per tonne sales production

(GRI 302-1), (GRI 302-3), (GRI 302-4)

Metered energy consumption rose 3.7% to 3,940,048 GJ. The increase in energy consumption is related to increased production volumes on larger sites, high production of low monomer conversion grades in Malaysia, as well as the Pischelsdorf acquisition.

Although the 2018 progress toward the 2021 target was modest, there were some highlights. Alongside increased volumes, plant efficiency improvements on one of our UK sites saw its specific energy consumption reduced by 10%, and projects implemented at one of our latex plants in Malaysia (our 4th highest energy consumer) saw an almost 9% improvement in SEC per tonne.

Energy costs remain a significant challenge – the increasing production output and absolute demand so costs rise 15% on a straight comparison basis, and 13% when compared on a 2017 currency basis.

Electricity costs (direct and for imported services) accounted for ~54% of the Group's total energy bill.

### Reduction Opportunities

Several further projects that have both energy and emissions improvement benefits are in the pipeline that will improve performance, targeted around the six or seven sites with the largest energy and carbon footprint, but realisation in 2018 was slightly behind target.

The most important of these involves the proposed replacement of our coal burning power station on the Sokolov site in the Czech Republic. Scoping work is underway to install a new, more efficient Combined Heat and Power (CHP) system utilising natural gas as the fuel – it is estimated that this should lead to significant gains against our primary energy reduction target as well as achieving most of our 2021 emissions reduction target. It is intended that this project should be fully implemented in 2020.

## Greenhouse gas emissions and climate change

The need to reduce GHG releases is underlined by international commitments to the Paris Climate Agreement, and the evidence from the recent IPCC Report of the potential impact that even a 1.5degC increase in global average temperatures by the end of the 21st Century could have. The European Union's Carbon Reduction Commitment (CRC) requires a significant absolute reduction over the period to 2020 and then a minimum of an 80% reduction by 2050. Similarly, Malaysia has set the target of growing their economies within current carbon emissions.

(GRI 103-1), (GRI 103-3)

Synthomer similarly recognises the need for, and remains committed to, effective control and reduction of GHG emissions, both morally and through its legal duty to contribute to emissions reductions in the territories it operates.

The Group reports environmental KPIs in the format recommended by the UK's Department of Environment, Food and Rural Affairs (DEFRA), with Annual Reports containing data for each year since 2005 on a three year rolling basis.

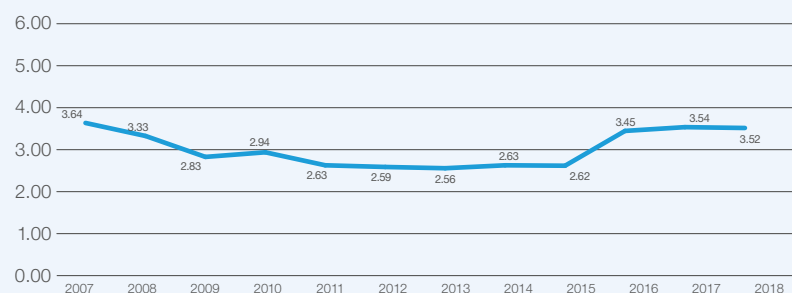
The scope of our reporting and methodology used to determine our emissions has been described on pages 55 and 56 of our 2018 Annual Report. The following summarises the approach.

### Reporting parameters

The 2018 financial year reporting includes all manufacturing operations, all office locations co-located with manufacturing and those listed as contact locations in the Annual Report or on the Company's website. It excludes small locations such as home offices with no material impact on Group totals.

All known emissions from manufacturing process have been included, including those from direct energy usage and indirect energy such as heating, cooling and other site services where these are provided by a third party. They include estimates for the effects of the release of volatile organic compounds (VOCs) and refrigerant gases.

**Figure 5 – Total Net Primary Energy Use**  
(Giga Joules per production tonne)



The Group has no known uses or releases of perfluorocarbons or sulphur hexafluoride. All releases of nitrogen oxides or methane are associated with energy production. Reported CO<sub>2</sub> equivalent emissions totals incorporate their contribution. The Group continues to report scope 1 & 2 emissions and uses emissions per production tonne as its intensity ratio. (GRI 305-7)

No estimate has yet been made of scope 3 emissions owing to the complexity of the company supply chain, but this is under consideration as a future activity. (GRI 305-1), (GRI 305-2)

### Calculation methods

Emissions factors for primary energy sources are those provided by DEFRA, excepting for coal used in the Czech Republic where local verified emissions data from the coal mine has been used. No allowance has been made for possible country to country variation in calorific value or CO<sub>2</sub> emission factors for primary fuels.

Electricity has been converted to CO<sub>2</sub>e on a country by country basis, with emissions factors from DEFRA or the relevant IEA "World CO<sub>2</sub> Emissions from Fuel Combustion" databases (location based factors used in most cases) – work is currently ongoing in line with our objective of using market based emissions factors. For those sites with certified green energy market based factors have been used – emissions factors of zero in all cases for the Netherlands, Marl (Germany) and all sites in the UK.

VOCs have been aggregated on a Group basis and converted to CO<sub>2</sub>e using a factor of 11 – a factor used by UK CIA member companies since 2005 and is at the upper end of the range for VOCs.

Refrigerant emissions factors are as per those in 2016 and 2017 as no changes were reported by DEFRA–Global Warming Potential (GWP) factors from the IPCC 4th assessment report.

### 2018 Performance

- + Total CO<sub>2</sub> equivalent emissions increased 2.4% to 311,893 tonnes
- + Emissions per tonne sales production decreased 1.8% to 0.198 tonnes per tonne sales production

- + VOC emissions dropped 14% to 141 tonnes
- + Refrigerant losses increased 33% to 2,355 tonnes – with equivalent CO<sub>2</sub> losses rising to 7,627 tonnes

(GRI 305-4), (GRI 305-5)

The absolute increase in emissions was largely due to higher production and therefore demand on our larger sites, but this higher output also meant that the intensity of our emissions in terms of releases per tonne were reduced. 15% of the absolute increase related to emissions from the plant in the Czech Republic that uses brown coal and as noted under the Energy section above, the Group is reviewing options relating to the fuel balance on this site.

The reduction in reported VOC emissions, full realisation of some energy related projects implemented during 2017 and some smaller projects completed in 2018, as well as the purchase of "green" grid electricity for all UK and Dutch sites, also helped progress us make progress towards our 2021 target. Whilst YOY we are currently slightly behind target we are confident we can achieve the 2021 goals.

Changes in the emissions factors in different countries can have a significant impact over which the company has no control. For 2018 reporting the emissions factors for several countries showed an improvement, reflecting work done at national level to improve the renewables proportion of the grid supplies.

The increase in refrigerant losses related to issues on one site in Malaysia, and actions have been taken to address them.

### Future Activities

The strategy for achieving our internal emissions reduction targets are focused on:

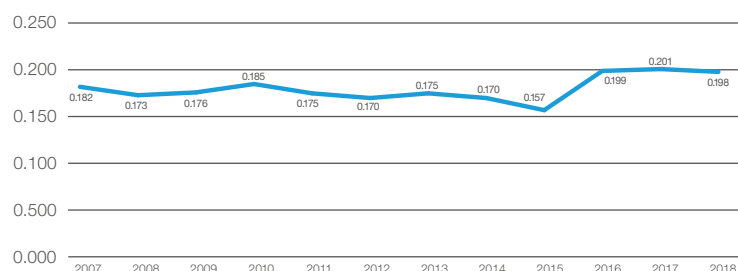
- + Implementation of key energy and emissions reduction related capital projects that provide the most significant sustainable benefit in terms of both improvement and cost effectiveness for the Group – these are focused on "Tier 1" energy user/GHG emitters.
- + Switching to green electricity tariffs for grid supply where this is both practical and cost effective – if comparable tariffs for green and non-green tariffs are available preference will always be given to the green tariff.

Longer term strategic activity options are under review by the Sustainability Committee, influenced in part by analysis of potential areas for improvement linked to our performance under CDP. These include:

- + Assessing the viability and resource requirements to undertake lifecycle analysis for key products – considering at least cradle to gate footprint.
- + Identification and determination of key Scope 3 emissions.
- + Consideration of incorporating carbon pricing within our capital planning processes.

From a lifecycle perspective it is estimated that over 75% of emissions associated with our products are linked to upstream bulk raw material production processes (such as monomer production) where we currently have limited ability to significantly influence emissions reduction, but we are conscious of increasing stakeholder awareness and requirements in this area.

**Figure 6 – Global Warming Burden**  
(Tonnes CO<sub>2</sub> equivalent released per production tonne)  
(Includes CO<sub>2</sub> from energy generation/use)





### Water

As a producer primarily of water based polymer emulsions, Synthomer is conscious of the need to effectively manage our overall net consumption such that water usage beyond that needed for our products is minimised. Additional water is primarily required for cooling, steam generation and cleaning. (GRI 103-1), (GRI 103-3)

We have participated voluntarily in submitting data to CDP's Water Questionnaire since 2016 and the process of data collection and review of site issues is helping identify potential risk areas and build better understanding of broader aspects of water management.

In previous years Synthomer has reported "water usage" as metered water totals excluding river water used for once through cooling on several sites, and "water consumption" as all metered water.

To align properly with GRI Standards definitions moving forward, "water withdrawal" figures now cover all metered usage (as per the previous "water consumption" figure).

Determination of revised figures for net water consumption has been estimated for 2018 against the GRI Standards for the first time within this Report.

The figures reported are based on the difference between water withdrawal and water release/discharge totals – in some cases it has not been possible to determine accurate figures since the discharge totals reported include collected rainwater that has fed to effluent and for which no clear estimation has yet been made, or once through cooling returns where system losses have had to be estimated. In some case this has led to sites reporting a net negative consumption (e.g. where rainwater forms part of discharge volumes).

It is intended to review our water balance data on our main operating sites to aid in improving data accuracy going forward.

### 2018 Performance

- + Water withdrawal increased 7.4% to 6,159,664 m<sup>3</sup>
- + Specific Water Withdrawal rose 2.9% to 3.904 m<sup>3</sup> per tonne sales production

(GRI 303-3)

The absolute increase in water withdrawal compared to the 2017 baseline is related to both production increases on some larger sites in Asia, commissioning activities and in particular increased requirement for cooling water (once through) on one of our German sites owing to high river water temperatures.

A breakdown of water withdrawal by source is included in the Performance Summary Table on page 30.

These were partly offset by significant reductions in water withdrawal on other sites, including a 12% reduction per tonne at another German site as a result of process optimisation and reduced demands for cleaning, and a 22% reduction at one UK site through work to reduce leaks. These two sites reduced water withdrawal by 60,000 m<sup>3</sup>.

Estimated water consumption in 2018 was 1,974,484 m<sup>3</sup>, equivalent to 1.251 m<sup>3</sup> per production sales tonne. This compares to 1,793,563 m<sup>3</sup> in 2017 or 1.186 m<sup>3</sup> per tonne. This equates to an increase of 5.5% m<sup>3</sup> per tonne. (GRI 303-5)

### Future Activities

Some variance in water consumption is expected year to year because of product mix and volumes. As with energy, opportunities to improve water efficiency will be built in to sites' manufacturing strategies and environmental targets on a prioritised basis to bring us back on track with the longer term targets.

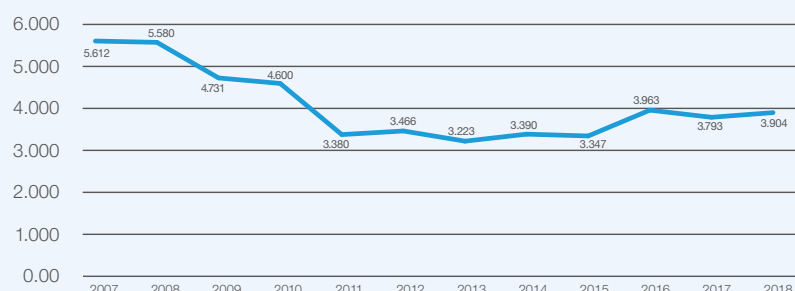
Our quoted improvement target is to reduce water consumption – the review against the GRI Standards identified that previous reporting has been based on the water withdrawal totals. As such we intend to review the baseline levels and potentially revise this target once we have a better idea of sites' water balances.

Some sites face potentially significant water constraints – although currently none are regarded as particularly high risk or as being in high water stress areas, although this remains under review. We have several projects being assessed looking to use on-site water capture not only to avoid production problems but as an environmentally preferable way of obtaining the water we use.

Where practical we also look at where closed circuit cooling can reduce the demand for high levels of water extraction.

Improving data accuracy in our water balance modelling and water consumption reporting is another key target to enabling opportunities for improvement to be more clearly identified and assessed.

**Figure 7 – Total Water Withdrawn**  
(m<sup>3</sup> per production tonne)



### Waste

Resource efficiency and process efficiency are important economic as well as sustainability drivers for the company.

Operating site manufacturing strategies are focused on improving performance and efficiency, including taking actions to improve product quality and processing to minimise waste and effluents linked to cleaning and out of specification material.

#### 2018 Performance

- + Total Waste generated increased 21% to 34,190 tonnes and waste to landfill increased 49% to 8,018 tonnes
- + Specific Waste Generation rose 16% to 21.7kg per tonne sales production and specific waste to landfill 42% to 5.1 kg per tonne sales production (GRI 306-2)

A detailed breakdown of waste generation and disposal by type is included in the Performance Summary Table on page 30. "Hazardous waste" totals are based on the relevant local legal definitions.

Waste disposal routes are those defined by sites as per relevant legislation, and confirmed by the relevant waste disposal contractor.

An expectation of increased one off waste levels was highlighted in last year's CSR Report, with significant quantities associated with major capital projects in Malaysia and Germany, removal of old waste materials and 600t of asbestos removal (which accounted for more than 80% of the increase in reported hazardous waste going to landfill).

Site clearing and remediation activities are also likely to have an impact on 2019 performance, but underlying performance is still regarded as reasonable.

Part of the increase in total waste was associated with production quality issues that resulted in non-hazardous coagulum waste levels increasing. Process improvement projects and quality control work is focussed on reducing these figures.

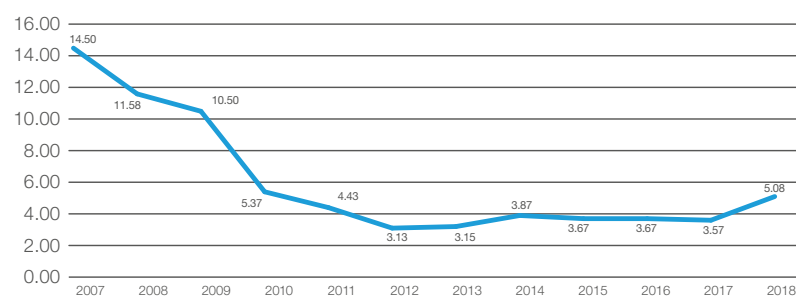
### "Manufacturing strategies focused on improving efficiencies and reducing waste at source"

#### Future Activities

The primary focus is on waste minimisation to reduce total waste, but we will continue to look at options for recycling and reusing waste streams to help divert away from landfill.

There has been success in previous years in diverting waste streams for use as composting material, but we also face challenges where some waste streams are defined as "hazardous waste" owing to the definitions set by waste directives in some jurisdictions where we operate. In some cases this has meant having to return to sending such waste to landfill as no other viable alternative exists – where we feel a strong argument can be made against this approach we will challenge it with the relevant authorities.

**Figure 8 – Total Waste disposed to Land**  
(kg waste per production tonne)



### Other environmental metrics

In addition to the four main KPIs, we monitor a number of other emissions and effluent metrics internally. Significant improvement has been made in all of these since 2000 and we continue to show good performance in most metrics. Whilst locally some metrics still require reporting to comply with local environmental permits, at a Group level the overall improvements seen are such that we have not regarded these as material aspects.

### Atmospheric acidification

The addition of a brown coal burning plant in the Czech Republic in 2016 had a significant detrimental impact on our reported sulphur dioxide (SO<sub>2</sub>) emissions. 2018 saw a 10% reduction in absolute reported emissions, linked to variations in operating and climate conditions compared to 2017 at the Sokolov site that accounts for 95% of the reported total. (GRI 305-7)

The project to install a natural gas CHP unit on the site noted earlier will also significantly reduce our SO<sub>2</sub> emissions going forward.

### Effluent – Eutrophication and Ecotoxicity

Phosphate, nitrate and Chemical Oxygen Demand (COD) releases are estimated or measured (dependent on local site requirements) to provide a combined eutrophication environmental burden factor. The addition of the new plants has had some impact on group performance in this area, with reported phosphate equivalent levels at a reported 0.052 kg/tonne production, an increase on the 0.044 kg/tonne production reported in 2017 but 76% lower than in 2012.

Ecotoxicity levels in terms of metals (copper equivalent) were reported as 0.068 grams/tonne production, a 3% decrease on 2017 levels but still historically low (a quarter of the levels reported 10 years ago and 30% lower than in 2012).

None of this would be achieved without the Group's staff on all sites who have driven these improvements and whose aims are to produce better quality product, using more carefully husbanded resources, whilst producing less waste.

### Environmental incidents and legal compliance

The group monitors and reports environmental non-compliance based on either 'reportable incidents to external authorities' or 'notifiable breaches of discharge consent'. 2018 saw a reduction in the number of such incidents from six in 2017 to just one in 2018. This related to a notifiable exceedance of one consent limit at a UK site (with no actual environmental impact) – a full root cause analysis was undertaken, and corrective action implemented to prevent recurrence.

(GRI 307-1)

Environmental and Safety legal compliance is closely tracked and formally reported to the Group Executive and Board every six months, with any identified gaps or issues prioritised and monitored to ensure timely resolution.

During 2018 operating sites reported four minor notices regarding environmental and safety compliance, none of which resulted in prosecutions or fines, and all of which have been addressed.

Sites are required to review and report on legal compliance status relating to environmental and safety regulations and licenses on a six monthly basis – this includes forward views on activities required to ensure compliance with any new legislation.

In 2019 Synthomer will be piloting a new 3rd party scheme to assist with identification and validation of all legal requirements in this area, with a view to potential global roll-out through 2019 and 2020.

Figure 9 – Environmental Non-Compliance Incidents

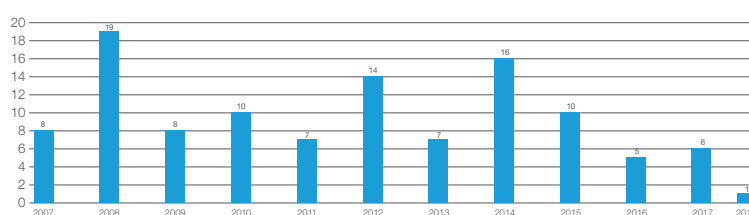
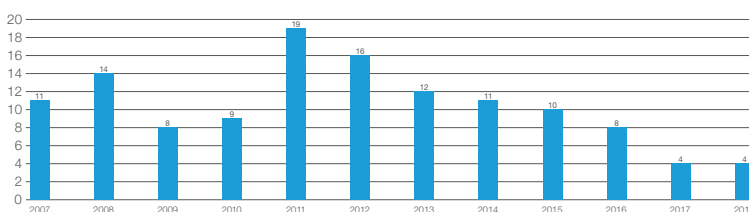


Figure 10 – Environmental & Safety Legal Notices



**Environmental Performance Summary** (GRI 103-2)

	2018	2017	2016	% change 2016-18 <sup>a</sup>	% change 2017-18 <sup>b</sup>
<b>Energy consumption<sup>1,7</sup> (GRI 302-1)</b>					
<b>GJ</b>	<b>5,560,467</b>	5,352,562	5,279,491	5.3%	3.9%
Gas	<b>1,561,042</b>	1,459,411	1,375,411		
Light oil	<b>22,625</b>	24,990	24,933		
Heavy oil	<b>5,533</b>	4,651	4,452		
Steam (metered) (GRI 302-3)	<b>751,545</b>	756,890	792,785		
Electricity (primary basis) (GRI 302-4)	<b>2,633,115</b>	2,523,661	2,551,197		
<b>GJ/tonne production</b>	<b>3.524</b>	3.541	3.452	2.1%	-0.5%
<b>Emissions to Air<sup>2</sup></b>					
<b>Carbon Dioxide (CO<sub>2</sub>) equiv. from Energy tonnes<sup>3,8</sup></b>	<b>302,717</b>	298,163	296,487	2.1%	1.5%
Tonnes CO <sub>2</sub> equivalent/tonne production	<b>0.192</b>	0.197	0.194	-1.0%	-2.7%
<b>Sulphur Dioxide (SO<sub>2</sub>) (tonnes) (GRI 305-7)</b>	<b>142.5</b>	158.3	140.6	1.4%	-10.0%
Kilos SO <sub>2</sub> /tonne production	<b>0.0903</b>	0.1047	0.0919	-1.7%	-13.7%
<b>Nitrogen Oxides (NO<sub>x</sub>) tonnes<sup>4</sup> (GRI 305-7)</b>	<b>129.97</b>	121.33	112.54	15.5%	7.1%
Kilos NO <sub>x</sub> /tonne production	<b>0.0824</b>	0.0803	0.0736	11.9%	2.6%
<b>Volatile Organic Compounds (VOC) tonnes</b>	<b>141</b>	164	184	-23.6%	-14.3%
Kilos VOC/tonne production	<b>0.089</b>	0.109	0.121	-26.0%	-17.9%
<b>Refrigerant Releases (HCFC and others) Kgs</b>	<b>2,355</b>	1,773	1,681	40.1%	32.9%
Tonnes CO <sub>2</sub> equivalent	<b>7,627</b>	4,485	5,930	28.6%	70.1%
<b>Kilos Refrigerant/tonne production</b>	<b>0.0015</b>	0.0012	0.0011	35.8%	27.3%
Total Scope 1 CO <sub>2</sub> equiv. emissions (tonnes) (GRI 305-1)	<b>147,527</b>	139,285	130,505	13.0%	5.9%
Total Scope 2 CO <sub>2</sub> equiv. emissions (tonnes) (GRI 305-2)	<b>164,365</b>	165,170	173,940	-5.5%	-0.5%
<b>Total Carbon Dioxide (CO<sub>2</sub>) equiv. tonnes<sup>5</sup> (GRI 305-4)</b>	<b>311,893</b>	304,454	304,445	2.4%	2.4%
<b>Tonnes CO<sub>2</sub> equivalent/tonne production (GRI 305-5)</b>	<b>0.198</b>	0.201	0.199	-0.7%	-1.8%
<b>Water Usage – Withdrawal Volumes</b>					
<b>Cubic Metres (m<sup>3</sup>) (GRI 303-3)</b>	<b>6,159,664</b>	5,733,785	6,060,411	1.6%	7.4%
Public potable supply	<b>1,169,277</b>	1,064,372	1,101,568	6.1%	9.9%
Raw water from river	<b>2,921,661</b>	2,778,739	3,003,354	-2.7%	5.1%
Raw water from borehole	<b>780,757</b>	556,970	542,552	43.9%	40.2%
Raw water from other	<b>1,220,116</b>	1,253,285	1,334,657	-8.6%	-2.6%
<b>m<sup>3</sup>/tonne production</b>	<b>3.904</b>	3.793	3.963	-1.5%	2.9%

**Environmental Performance Summary** continued

	2018	2017	2016	% change 2016 – 18 <sup>a</sup>	% change 2017 – 18 <sup>a</sup>
<b>Waste Management (GRI 306-2)</b>					
<b>Hazardous waste (tonnes)</b>	<b>20,963</b>	16,959	12,095	73.3%	23.6%
<b>Hazardous waste sent off-site</b>					
Recycled – energy recovery	1,128	1,209	1,223		
Recycled – separated – reprocessed	6,697	6,009	5,017		
Incinerated – no energy recovery	1,507	870	742		
Disposed by landfill	1,347	505	775		
<b>Other</b>	<b>10,210</b>	8,308	4,294		
<b>Hazardous waste disposal on-site</b>					
Incinerated on-site with energy recovery	75	58	44		
<b>Hazardous waste (kg/tonne production)</b>	<b>13.29</b>	11.22	7.91	68.0%	18.4%
<b>Non-hazardous waste (tonnes)</b>	<b>13,227</b>	11,236	10,549	25.4%	17.7%
<b>Non-hazardous waste sent off-site</b>					
Recycled – energy recovery	1,912	1,751	2,930		
Recycled – separated, reprocessed	1,690	2,436	1,688		
<b>Incinerated – no energy recovery</b>	<b>500</b>	150	19		
<b>Disposed by landfill</b>	<b>6,672</b>	4,890	4,833		
<b>Other – municipality</b>	<b>2,454</b>	2,003	1,073		
<b>Non-hazardous waste disposal on-site</b>	<b>0</b>	6	6		
<b>Non-hazardous waste (kg / tonne production)</b>	<b>8.38</b>	7.43	6.90	21.5%	12.8%
<b>Total waste (kg / tonne production)</b>	<b>21.67</b>	18.65	14.81	46.3%	16.2%
<b>Production (tonnes)<sup>9</sup></b>	<b>1,577,781</b>	1,511,666	1,529,322	3.2%	4.4%

The UK Department for Environment, Food and Rural Affairs (DEFRA) first published guidelines for reporting environmental key performance indicators in 2006. The key measures suggested were energy use, emissions to air, waste disposal and water consumption, on an absolute and a per tonne basis. Synthomer has reported on these indicators for a number of years, and to aid transparency in environmental reporting we adopted DEFRA's preferred format in 2008 for the annual report on our SD performance.

The above table presents 2016-18 KPIs and reports on all the emission sources required under the Companies Act 2006 (Strategic Report and Directors' Reports) Regulations 2013 (as already published in the Annual Report) and other key metrics for water and waste. It is based on the corporate structure through the year, including February to December data for the Austrian site acquired from BASF.

**Notes**

1. Data relates to site usage of all fuels, excluding transport of goods to and from site and the movement of these vehicles on site. Internal transport on site is included.
2. Emissions to air have been calculated from the usage of all fuels, excluding transport fuel. They therefore include both direct emissions and indirect emissions related to bought-in electricity, steam, compressed air, cooling water etc., with the exception of transmission and distribution losses for electricity (these losses are in Scope 3, this report is for Scope 1 & 2).
3. CO<sub>2</sub> equivalent emissions include contributions from CH<sub>4</sub> and N<sub>2</sub>O associated with combustion.
4. NO<sub>x</sub> emissions are predominantly those from combustion processes. The CO<sub>2</sub> equivalent Global Warming Potential contribution from these releases is already included in the CO<sub>2</sub> from energy figure above.
5. The total CO<sub>2</sub>e figure is the total of the CO<sub>2</sub> equivalent from energy + the VOC contribution (assuming an average factor of 11 kg CO<sub>2</sub>e per kg VOC) + the refrigerant contribution.
6. Percentage changes are calculated from the base data and may differ slightly from changes calculated from the data in the tables because of rounding.
7. Minor changes to reported energy consumption (gas) made following corrections to reported conversion factors for two sites.
8. Emissions reported for 2017 have increased after identification of an additional release source at the speciality plant in Belgium where light and heavy end fractions are incinerated. This has also led to a correction in the baseline for Synthomer's targets to 2021.
9. Production figures (based on production sales volume) have been restated down after identification of errors relating to internal production vs. sales production for the Sokolov plant. This relates to volumes produced on the Sokolov monomers' plant that are utilised on the Latex Dispersions operation. The figures for 2016 and 2017 have therefore been restated so that the relative trends for the reporting period are correct.





# Sustainable Value Chain

Following initial review of our materiality aspects fitted within this area, Product Safety has now been included within the Value Chain Pillar, reflecting its fit within the R&D and Regulatory Affairs organisational structure in Synthomer. (GRI 103-1, GRI 103-2)

This Pillar of our Sustainability programme has been identified as an area requiring more focus in order to ensure that we have the systems in place to meet the expectations of our stakeholders (internal and external) against the identified material aspects, and to enable us to effectively monitor and report performance and identify areas for improvement.

Our Quality, Manufacturing Excellence, Procurement and R&D functions are central to driving activity in this area. (GRI 102-9)

## Our Sustainable Value Chain

### 1. Research and development

Under central leadership, our four research and development 'centres of excellence' work to both develop products that meet our customers' needs and to improve the efficiency of their manufacture.

### 2. Consumers

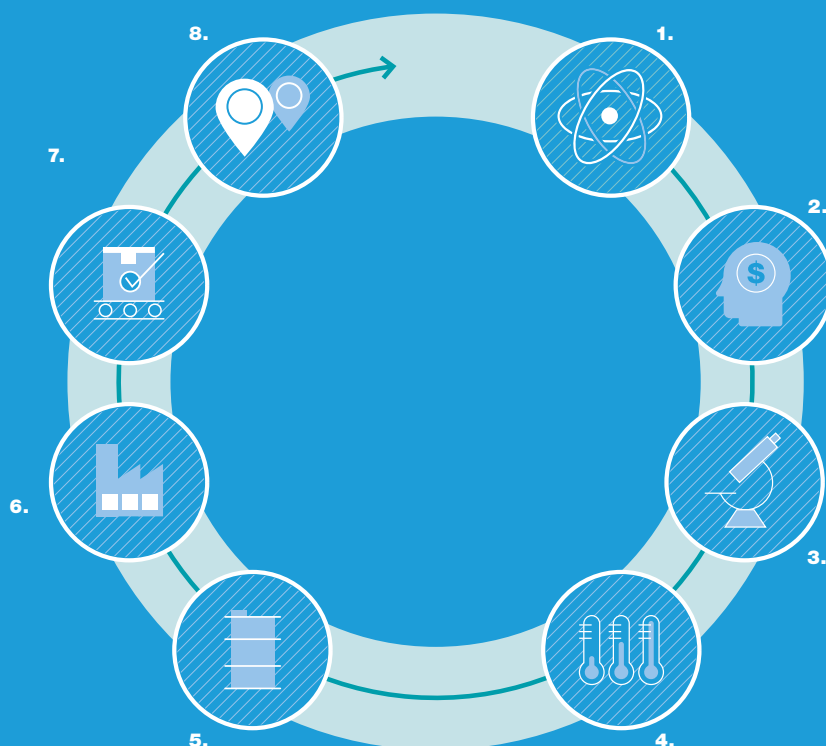
We monitor mega-trends and market developments to ensure our formulations meet the requirements not only of our customers but also the end users of their products.

### 3. Technical services

Our technical service teams work with our customers to ensure we provide the right formulation for their needs.

### 4. Formulations

Our formulations are designed for use in customer specific products.



### 5. Sourcing raw materials

We work closely with our suppliers to obtain competitive prices, correct specification and to improve supply chain resilience.

### 6. Production

Experienced operations teams continue to optimise the production process to be most efficient by using complex production techniques and removing bottlenecks.

### 7. Quality control

Our quality control procedures and laboratories ensure that we manufacture and store finished products in a manner that assures quality.

### 8. Logistics

Our specialist logistics teams work on ensuring safe and timely deliveries of excellent products in more than 140 countries.

## Sustainable Procurement

The Procurement function has a key role to play in ensuring that Synthomer manages its wider supply chain in a way that supports our sustainability principles and goals.

(GRI 103-2)

Synthomer requires any individual or entity acting on its behalf, whether as a consultant, representative, agent or distributor to know, understand and abide by the laws and regulations applicable in the country or countries in which they act for Synthomer. The requirements are covered in detail within the Business Policies in our Code of Conduct. (GRI 103-3)

Before a vendor is on-boarded and approved for purchase and use, Synthomer employs multiple assessment processes. A periodic review of key suppliers is carried out to assess performance of the supplier against criteria covering technical support, commercial performance, reputation including REACH and local regulatory compliance. We also carry out periodic supply chain risk reviews and continually build and improve the raw materials and vendor on-boarding processes and procedures.



Following a review of our practices and identification of areas for improvement in relation to our Silver CSR rating from EcoVadis, in 2018 we undertook an exercise to improve how we assessed the performance of suppliers with regard to sustainability.

This included changes to audit process and questionnaires, and initial roll-out of a supplier audit schedule as per the targets and objectives described in our 2017 CSR Report.

Restructuring and strengthening of the Procurement function ran through 2018 and into early 2019

## 2018 Performance and Future Activities

Vendor approval and supplier auditing procedures have been established, with Purchasing Managers responsible for identifying and planning assessment of critical suppliers.

The targets established last year were for each Procurement department to undertake 1 full critical supplier audit per year, plus 2 desktop sustainability audits.

Owing to the significant restructuring within the Procurement function in 2018 only one full on-site audit was completed, plus 5 desktop assessments. No significant issues were reported. The shortfall against the audit target will be made up in 2019.

As a result of the reviews conducted in 2017 looking at how we might reduce further the potential for modern slavery within our supply chain, Synthomer has committed to and has begun the process of implementing an advanced sourcing tool that will streamline its on-boarding processes. In addition to this, Synthomer is actively seeking to building in a process that will identify modern slavery within the new sourcing tool. Synthomer is also considering bringing in tougher vendor reviews and the introduction of guarantees from new vendors and suppliers in high risk areas.

Our future reports will expand on activities in this area.

(GRI 308-2), (GRI 414-2)

## R&D and New Product Development

As outlined in our Annual Report, Synthomer is committed to having a strong new product pipeline, focused in meeting customer needs, monitoring mega-trends and market developments to address end user demands and needs, for example with regard to having more sustainable and environmentally friendly products.

## 2018 Highlights and Future Activities

The proportion of sales from new products (those less than 5 years old) has continued to increase, from 15-16% a few years ago, to 21% in 2018.

In order to better address the sustainability impact along the value chain of the new developed products new criteria for Product and Technology Development Projects were defined:

- + **Air Quality.** Results in an improvement of indoor or outdoor air quality through the reduction of air borne pollutants.
- + **Energy or Material Efficiency.** Results in a measurable reduction of energy and/ or the total amount of material required to solve the value chain problem.
- + **Recyclability.** Results in an improved recyclability or end of life management to reduce overall environmental impact.
- + **Less Harmful Material.** Uses a demonstrably less harmful material than the materials being replaced to solve the value chain problem.
- + **Renewable or Lower Impact Raw Materials.** Uses raw materials from a renewable source or one that has a demonstrably lower carbon footprint than the materials being replaced to solve the value chain problem.

Synthomer prides itself on its innovative product development, and in 2018 successfully launched new formaldehyde free SBR binders for textile (Litex AlkaShield 1543 and Litex QuickShield 1545), with the new products being awarded “Best Innovation in Textile Chemistry” at the Future Textile Awards 2018.

In addition, a comprehensive Life Cycle Analysis was undertaken on our Synovus glove product in 2018, that demonstrated that we deliver significantly lower environmental impact than previous products, driven by lower energy use on the glove dipping line.

Synthomer continues to look at ways to further reduce the volatile organic content

(VOC) of its products. An R&D program is in place to better understand the fundamental levers needed to control VOC across our aqueous polymer technologies, and is working alongside an operational best practice program, to identify where improvements can be made.

All the above projects are aligned with the developed sustainability criteria for new products.

Looking forward, the Board has given approval for £6m investment in a state-of-the-art Asian Innovation Centre based in Malaysia that will significantly enhance our global R&D capabilities. This is targeted to open in 2020.

### Product Safety

The majority of Group products are water-based emulsions that are not deemed to be hazardous chemicals.

For those products that are hazardous, Synthomer is committed to providing its customers with comprehensive and legally compliant safety data sheets in all the markets we serve, setting out the hazards and controls required to ensure they are managed, handled and disposed of safely. We further provide appropriate technical data regarding all our products to enable customers to handle them safely. (GRI 416-1 and GRI 416-2, GRI 417-1 to GRI 417-3)

All legal requirements regarding provision of safety information have been complied with, and we have had no reported incidents of non-compliance regarding product safety information, labelling or marketing.

### 2018 Activities

Our central Regulatory Affairs Department manages our ongoing REACH compliance activities through our supply chain and has been active in preparing for the potential impact of Brexit on chemicals registered within and transported to the UK.

.....  
We are fully compliant with the requirements of the European REACH Directive – our current statement can be found on the Synthomer website at [https://www.synthomer.com/uploads/tx\\_reach/REACH\\_Statement\\_2018.pdf](https://www.synthomer.com/uploads/tx_reach/REACH_Statement_2018.pdf)



## Quality and Customer Satisfaction

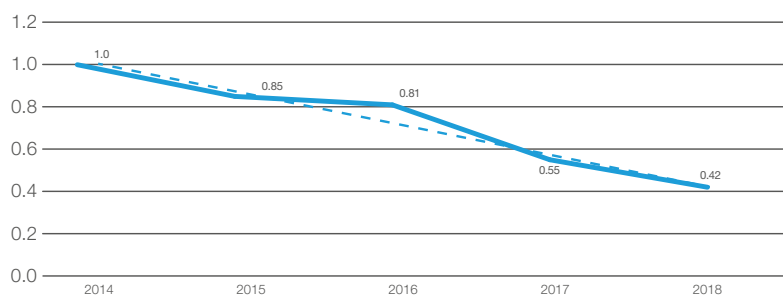
Synthomer recognizes that operating with Quality contributes to improve the sustainability performance creating lean operations, reducing waste, and improving efficiency among others.

In 2018 all operating sites of Synthomer achieved recertification of their quality management system according to ISO 9001:2015.

From customer surveys it is known that quality consistency of our products and on-time delivery are amongst the most important customer expectations. These, together with the recognition of our certifications, are the basis on which we are rated by our customers. We are proud that in 2018 Synthomer Deutschland GmbH was rated "A-supplier" by all customers who sent us their supplier rating results.

In 2018, complaint rate (number of complaints per 1000 deliveries) was reduced significantly over previous year (-24%) continuing a long term trend. This success is based on continuous improvement of product quality consistency as well as of internal processes and cooperation with suppliers and service providers. These efforts also show in an ongoing trend to higher rates of "Right First Time" production.

Figure 11 – Customer complaints per 1000 deliveries



# Overview of Targets and Objectives for 2019 onwards

The following summarises the main objectives set out in this report, all geared around improving sustainability awareness, systems and performance across the Group

	Target Year
<b>Strategy and business</b>	
Review approach to energy and GHG emissions reporting, targeting and data validation	2019
Refine sustainability reporting against GRI "Core" Standards	2019
Achieve and sustain "Gold" rating from Ecovadis	2020
<b>Governance and compliance</b>	
Complete Code of Conduct training globally	2019
Comply with relevant sections of 2018 UK Corporate Governance Code	2019
Introduce Code of Conduct e learning module	2020
GDPR – complete initial data security audit and begin implementing resulting improvements	2020
<b>People – employment conditions/ diversity and development</b>	
Implement the Employee Voice programme in accordance with the 2018 Corporate Governance Code	2019
Embed the Synthomer Leadership Development Programme	2019
Implement the Synthomer Diversity and inclusion plans	2019
Implement the Executive Global Leadership Report	2019
Launch globally the market aligned, role and compensation framework	2019
<b>Health and safety</b>	
0.21 Recordable Case Rate (incidents per 100,000 working hours)	2019
0.16 Process Safety Event Rate (incidents per 100,000 working hours)	2019
<b>Environment</b>	
<i>Targets carried forward, based on 2017 revised baseline</i>	
6% reduction in specific energy consumption (GJ/t production)	end 2021
9% reduction in Greenhouse Gas emissions (t CO <sub>2</sub> e /t production)	end 2021
6% reduction in water consumption (m <sup>3</sup> /t production)	end 2021
7.5% reduction in waste to land (metric ton/metric ton production)	end 2021
>50% site emissions calculated using market-based emissions factors (carried forward)	2019
<b>Sustainable Value Chain</b>	
Assessment of the Consumer Packaging Value Chain to identify opportunities for more sustainable systems	2019
Complete the EPDLA life cycle assessment for major product lines	2019
Undertake initial assessment of active R&D projects against Sustainability Criteria	2019
Consolidate the customers complaints good performance achieved in 2018	2019
Complete 5 key supplier audits for each procurement function (at least 1 per region)	2021
Complete desktop sustainability assessment of top 10 key suppliers (in each region)	2022



# Annex



## This Report

This is the 8th report Synthomer has published covering CSR (Corporate Social Responsibility) and Sustainability, covering the 2018 fiscal year (January 1 to December 31, 2018), except where otherwise indicated, and complements the information included in the Annual Report. (GRI 102-50), (GRI 102-51)

It is the first Synthomer Sustainability Report that meets the requirements of the Global Reporting Initiative (GRI). It has been prepared in compliance with the GRI Standards in accordance with the "core" option. The correspondence with the different GRI Disclosures is detailed in the Annex included at the end and by the Disclosure numbers are indicated within the relevant sections. (GRI 102-54), (GRI 102-55)

## Scope of Reporting, Assurance and Company Contact

Unless otherwise stated, this report covers all Synthomer Group companies included within the scope of the consolidated Group financial statements of Synthomer plc covering fiscal year 2018 (1 January 2018 to 31 December 2018), prepared in accordance with International Financial Reporting Standards (IFRS) and detailed in the 2018 Synthomer Annual Report. (GRI 102-50), (GRI 102-10)

This Report covers the full company including all the manufacturing sites, offices, labs and technical centres owned by Synthomer. Environmental performance data covers all manufacturing operations and major office / technical centres – it excludes all non-trading and office / sales related subsidiaries and joint ventures listed on pages 154 to 156 of the 2018 Annual Report. (GRI 102-45), (GRI 102-46)

Some restatement of environmental data has taken place following identification of errors and omissions relating to 2016 and 2017 – these are detailed in the Notes to the Environmental Performance Summary table on page 30. (GRI 102-48), (GRI 102-49)

The sustainability topics covered are the ones identified by the company and by the stakeholders as the most material. As detailed in the section on Strategy and Business these material topics are grouped in 6 areas (or Sustainability Pillars) around which the structure of this report is based. (GRI 102-47)

Our most recent CSR Report corresponding with fiscal year 2017 was published in July 2018. The next sustainability report will be published in 2020 and will cover 2019 fiscal year. (GRI 102-51), (GRI 102-52)

The financial information contained in the Annual Report has been externally audited by PricewaterhouseCoopers LLP Chartered Accountants and Statutory Auditors. Some aspects of our sustainability reporting have been reviewed within the scope of the external audit, but there has been no formal external party verification of the non-financial aspects of this Report. (GRI 102-56)

Should you have any questions regarding our Sustainability Report or its contents then please do not hesitate to contact our Sustainability Committee, via Amaia Menéndez amaia.menendez@synthomer.com (GRI 102-53)

## External Certification and Accreditation

We are committed to external certification of our management systems to ensure that we deliver on our policy commitments and we continue to make significant progress particularly with ISO 14001 and the expansion of certification of sites to ISO 50001. (GRI 102-12)

All operating sites are either covered by the Group's recent certification for ISO 14001 or (for recent acquisitions) have site specific certification in place.

All UK and German sites have accreditation to the ISO 50001 Energy Management System standard and the learning from structured approach to energy management will be applied across other sites.

Several sites in the combined Group have OHSAS 18001 certification to meet legal requirements, including both Italian sites, Oulu site in Finland and the Sokolov site in the Czech Republic.

As we undertake extensive internal auditing of our systems, with ISO 9001 and 14001 audits covering a number of areas

common to OHSAS 18001 / ISO 45001 there is no current Group objective to seek certification at Group level to the new ISO 45001 Standard.

## Accreditation and External Benchmarking

In addition to our Standards certification we also seek to benchmark ourselves against our peer companies and demonstrate our commitment to sustainability through participation and membership of the following: (GRI 102-13)

- + FTSE4Good: Synthomer plc has been a member of FTSE4Good for a number of years and is committed to maintaining membership of that index and improving its overall rating as the business grows.
- + CDP: We have reported on climate change performance to the Carbon Disclosure Project (CDP) since 2013. In 2018 we achieved a "D" score at the Disclosure level, a drop from our performance in previous years. We are determined to reverse this trend and are actively working to understand the gaps, identify areas for improvement and implement a plan that will help us improve our scoring in 2019. We also chose to voluntarily submit information to CDP's water assessment as a means of helping us better understand potential risk areas.

At present we do not believe there are any materially significant risks associated with climate change and water, but we continue to review and include both climate change and water risks within our business risk assessment process.

- + Ecovadis: At Group level we are committed to annually submitting data to the Ecovadis CSR platform and using the assessment to identify areas for improvement. Data is shared with many of our customers as an efficient means of streamlining communication on CSR performance. In 2018 we maintained our Silver rating for the 4th year running, increasing our score from 54 to 57. Our intention is that through alignment with GRI Standards and associated improvements to our activities and reporting practices we can move towards achieving a Gold rating within the next two years.

# GRI Content Index

GRI Standard	Disclosure	Reference Sustainability Report (Annual Report)	Page	Comment on Non-Disclosure
<b>GENERAL DISCLOSURES</b>				
<b>Organizational profile</b>				
GRI 102-1	Name of the organization	Strategy & Business: Business Overview	6	
GRI 102-2	Activities, brands, products, and services	Synthomer at a glance; Strategy & Business: Business Overview	1,6	
GRI 102-3	Location of headquarters	Strategy & Business: Business Overview (Report of the Directors)	6 (90)	
GRI 102-4	Location of operations	Synthomer at a glance	1	
GRI 102-5	Ownership and legal form	Strategy & Business: Business Overview (Report of the Directors)	6 (90)	
GRI 102-6	Markets served	Synthomer at a glance	1	
GRI 102-7	Scale of the organization	Synthomer at a glance; Strategy & Business: Business Overview (Business at a Glance, Our new global business structure)	1,6 (2-3, 20-27)	
GRI 102-8	Information on employees and other workers	People	14	
GRI 102-9	Supply chain	Sustainable Value Chain	32	
GRI 102-10	Significant changes to the organization and its supply chain	Strategy & Business: Business Overview; Annex (Business at a Glance, Our new global business structure)	6, 37 (2-3, 20-27)	
GRI 102-11	Precautionary Principle or approach	Strategy & Business: Business Overview (Risk Management)	6 (32-37)	
GRI 102-12	External initiatives	Governance and Compliance: Voluntary Commitments; Annex	12,37	
GRI 102-13	Membership of associations	Annex	37	
<b>Strategy</b>				
GRI 102-14	Statement from senior decision-maker	Sustainability Overview: Chief Executive's Introduction	4	
<b>Ethics and integrity</b>				
GRI 102-16	Values, principles, standards, and norms of behaviour	Governance and Compliance: Code of Conduct	11	
<b>Governance</b>				
GRI 102-18	Governance structure	Governance and Compliance: Management Approach (Governance: Corporate Governance)	10 (58-66)	
<b>Stakeholder engagement</b>				
GRI 102-40	List of stakeholder groups	Strategy & Business: Stakeholder Engagement and Materiality Assessment	7	
GRI 102-41	Collective bargaining agreements	People	14	
GRI 102-42	Identifying and selecting stakeholders	Strategy & Business: Stakeholder Engagement and Materiality Assessment	7	
GRI 102-43	Approach to stakeholder engagement	Strategy & Business: Stakeholder Engagement and Materiality Assessment	7,8	
GRI 102-44	Key topics and concerns raised	Strategy & Business: Stakeholder Engagement and Materiality Assessment	8	
<b>Reporting practice</b>				
GRI 102-45	Entities included in the consolidated financial statements	Annex	37	
GRI 102-46	Defining report content and topic Boundaries	Strategy & Business: Stakeholder Engagement and Materiality Assessment; Annex	8, 9, 37	
GRI 102-47	List of material topics	Strategy & Business: Stakeholder Engagement and Materiality Assessment; Annex	8, 9, 37	
GRI 102-48	Restatements of information	Annex	37	

## GRI Content Index continued

GRI Standard	Disclosure	Reference Sustainability Report (Annual Report)	Page	Comment on Non-Disclosure
GRI 102-49	Changes in reporting	Strategy & Business: Stakeholder Engagement and Materiality Assessment; Annex	8, 9, 37	
GRI 102-50	Reporting period	Annex	37	
GRI 102-51	Date of most recent report	Annex	37	
GRI 102-52	Reporting cycle	Annex	37	
GRI 102-53	Contact point for questions regarding the report	Annex	37	
GRI 102-54	Claims of reporting in accordance with the GRI Standards	Synthomer at a glance; Annex	1, 3 37	
GRI 102-55	GRI content index	Annex; GRI Index	37, 38	
GRI 102-56	External assurance	Annex	3	PwC as company appointed auditors validate a selection of data, but no full assurance assessment against GRI done for this first new format Report
<b>SPECIFIC DISCLOSURES</b>				
<b>Strategy and Business</b>				
GRI 103-1	Explanation of the material topic and its Boundary	Strategy & Business: Business Overview	6	
GRI 103-2	The management approach and its components	Sustainability Overview: Progress against 2018 targets and objectives; Strategy & Business: Business Overview	3, 6	
GRI 103-3	Evaluation of the management approach	Strategy & Business: Business Overview	6	
<b>Risk Management</b>				
GRI 102-15	Key impacts, risks, and opportunities	Strategy & Business: Business Overview (Risk Management)	6 (32-37)	Main detail in the Annual Report
<b>Governance and Compliance</b>				
GRI 103-1	Explanation of the material topic and its Boundary	Governance and Compliance: Management Approach	10	
GRI 103-2	The management approach and its components	Sustainability Overview: Progress against 2018 targets and objectives; Governance and Compliance: Management Approach	3, 10	
GRI 103-3	Evaluation of the management approach	Governance and Compliance: Management Approach	10	
<b>Responsible and involved management</b>				
GRI 102-20	Executive-level responsibility for economic, environmental, and social topics	Sustainability Overview: Corporate Development President's Introduction; Strategy & Business: Business Overview	5, 6	
<b>Stakeholder involvement</b>				
GRI 102-21	Consulting stakeholders on economic, environmental, and social topics	Strategy & Business: Stakeholder Engagement and Materiality Assessment	8	
<b>Compliance</b>				
GRI 205-2	Communication and training about anti-corruption policies and procedures	Governance and Compliance: Training	13	
GRI 307-1	Non-compliance with environmental laws and regulations	Environment: Environmental incidents and legal compliance	29	
GRI 419-1	Non-compliance with laws and regulations in the social and economic area	Governance and Compliance: Voluntary Commitments; Environment: Environmental incidents and legal compliance	12, 29	
<b>Ethics and Integrity</b>				
GRI 102-17	Mechanisms for advice and concerns about ethics	Governance and Compliance: Ethics Hotline	12	
<b>People</b>				
GRI 103-1	Explanation of the material topic and its Boundary	People: Management Approach	14	
GRI 103-2	The management approach and its components	Sustainability Overview: Progress against 2018 targets and objectives; People: Management Approach	3, 14	
GRI 103-3	Evaluation of the management approach	People: Management Approach	14	

## GRI Content Index continued

GRI Standard	Disclosure	Reference Sustainability Report (Annual Report)	Page	Comment on Non-Disclosure
<b>Employment conditions</b>				
GRI 401-1	New employee hires and employee turnover	People: Attraction, Retention and Employee Development	16	
<b>Employees diversity and inclusion</b>				
GRI 405-1	Diversity of governance bodies and employees	People: Diversity	15	
<b>Employees development, training and education</b>				
GRI 404-1	Average hours of training per year per employee	People: Training	16	
GRI 404-3	Percentage of employees receiving regular performance and career development reviews	People: Attraction, Retention and Employee Development	15	
<b>Communities support</b>				
GRI 413-1	Operations with local community engagement, impact assessments, and development programs	People: "We Care"	17	More than 25% of sites reported positive local engagement activities, in addition to normal local communications
<b>Safety</b>				
GRI 103-1	Explanation of the material topic and its Boundary	Safety: Ensuring Safe Workplaces and Operations	18	
GRI 103-2	The management approach and its components	Sustainability Overview: Progress against 2018 targets and objectives; Safety: Ensuring Safe Workplaces and Operations;	3, 18	
GRI 103-3	Evaluation of the management approach	Safety: Ensuring Safe Workplaces and Operations; SHE audit programme	18, 20	
<b>Occupational Health and Safety</b>				
GRI 403-1	Occupational health and safety management system	Safety: SHE Management System	18, 19	
GRI 403-2	Hazard identification, risk assessment, and incident investigation	Safety: Systems Practices & Programmes;	18, 19, 20	
GRI 403-4	Worker participation, consultation, and communication on occupational health and safety	Safety: Reporting & Communication	19, 20	
GRI 403-5	Worker training on occupational health and safety	Safety: Systems Practices & Programmes	19, 20	
GRI 403-6	Promotion of worker health	Safety: Occupational Health and Wellness	22	
GRI 403-8	Workers covered by an occupational health and safety management system	Safety: SHE Management System	18	
GRI 403-9	Work-related injuries	Safety: Occupational Safety Performance	21, 22	Injury rate data reported based on 100,000 working hours aligned to historical UK metrics for lost time accident reporting
GRI 403-10	Work-related ill health	Safety: Occupational Health and Wellness	22	Work related ill health information in this report relates to employees only
<b>Environment</b>				
GRI 103-1	Explanation of the material topic and its Boundary	Environment: Achieving Sustainable Improvement; Energy; GHG Emissions and climate change; Water	24, 25, 27	
GRI 103-2	The management approach and its components	Sustainability Overview: Progress against 2018 targets and objectives; Environment: Managing our Environmental Responsibilities; Environmental Performance	3, 24, 30	
GRI 103-3	Evaluation of the management approach	Environment: Achieving Sustainable Improvement; Energy; GHG Emissions and climate change; Water	25, 25, 27	
<b>Energy</b>				
GRI 302-1	Energy consumption within the organization	Environment: Energy; Environmental Performance	25, 30	
GRI 302-3	Energy intensity	Environment: Energy; Environmental Performance	25, 30	
GRI 302-4	Reduction of energy consumption	Environment: Energy; Environmental Performance	25, 30	
<b>Water</b>				
GRI 303-3	Water withdrawal	Environment: Water	27, 30	Work underway to better model water balances on our sites so that more accurate data can be reported in future

## GRI Content Index continued

GRI Standard	Disclosure	Reference Sustainability Report (Annual Report)	Page	Comment on Non-Disclosure
GRI 303-5	Water consumption	Environment: Water	27	Work underway to better model water balances on our sites so that more accurate data can be reported in future
<b>Emissions</b>				
GRI 305-1	Direct (Scope 1) GHG emissions	Environment: GHG Emissions and climate change; Environmental Performance	26, 30	Methodology outlined on p26, performance on p.30
GRI 305-2	Energy indirect (Scope 2) GHG emissions	Environment: GHG Emissions and climate change; Environmental Performance	26, 30	Methodology outlined on p26, performance on p.30
GRI 305-4	GHG emissions intensity	Environment: GHG Emissions and climate change; Environmental Performance	26, 30	
GRI 305-5	Reduction of GHG emissions	Environment: GHG Emissions and climate change; Environmental Performance	26, 30	
GRI 305-7	Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions	Environment: Other environmental metrics, Environmental Performance	29, 30	
<b>Waste</b>				
GRI 306-2	Waste by type and disposal method	Environment: Waste; Environmental Performance	28, 30	
<b>Sustainable Value Chain</b>				
GRI 103-1	Explanation of the material topic and its Boundary	Sustainable Value Chain	32	
GRI 103-2	The management approach and its components	Sustainability Overview: Progress against 2018 targets and objectives; Sustainable Value Chain; Sustainable Procurement	3, 32, 33	
GRI 103-3	Evaluation of the management approach	Sustainable Value Chain: Sustainable Procurement	33	
<b>Procurement</b>				
GRI 308-2	New suppliers that were screened using environmental criteria	Sustainable Value Chain: Sustainable Procurement	33	For this first year of reporting we have only included data on assessments of existing suppliers completed – more comprehensive reporting will be included in future years
GRI 414-2	Negative social impacts in the supply chain and actions taken	Sustainable Value Chain: Sustainable Procurement	33	For this first year of reporting we have only included data on assessments of existing suppliers completed – more comprehensive reporting will be included in future years
<b>Product Safety</b>				
GRI 416-1	Assessment of the health and safety impacts of product and service categories	Sustainable Value Chain: Product Safety	34	
GRI 416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Sustainable Value Chain: Product Safety	34	No incidents reported in 2018
GRI 417-1	Requirements for product and service information and labelling	Sustainable Value Chain: Product Safety	34	
GRI 417-2	Incidents of non-compliance concerning product and service information and labelling	Sustainable Value Chain: Product Safety	34	No incidents reported in 2018
GRI 417-3	Incidents of non-compliance concerning marketing communications	Sustainable Value Chain: Product Safety	34	No incidents reported in 2018



# Glossary

AIMS	Accident and Incident Management System
CDP	CDP, formerly the Carbon Disclosure Project, is a not-for-profit organisation that runs a global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts - focused on GHG emissions / climate change, water and forestry. They have built and operate the most comprehensive collection of self-reported environmental data in the world
CH <sub>4</sub>	Methane
CIA	Chemical Industries Association
CHP	Combined Heat and Power
COD	Chemical Oxygen Demand
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	Carbon Dioxide equivalent
CRM	Customer Relationship Management system
CSR	Corporate Social Responsibility
DEFRA	Department of Environment, Food and Rural Affairs
EBITDA	EBITDA is calculated as operating profit before depreciation, amortisation and Special Items
EPDLA	European Polymer Dispersion and Latex Association
ESG	Environmental, Social and Governance
GDPR	General Data Protection Regulation
GHGs	Greenhouse Gases
GJ	Gigajoule
GRI	Global Reporting Initiative
GWP	Global Warming Potential
HCFC	Hydrochlorofluorocarbon
H&P	Health and Protection
HR	Human Resources
ICCA	International Council of Chemical Associations
IFRS	International Financial Reporting Standards
JV	Joint Venture
KPIs	Key Performance Indicators
ktes	Kilotonne or 1,000 tonnes (metric)
LTA	Lost Time Accident
M&A	Mergers and Acquisitions
m <sup>3</sup>	Cubic metres
MOC	Management of Change
N <sub>2</sub> O	Nitrous Oxide
NO <sub>x</sub>	Nitrogen Oxides
PHA	Process Hazard Assessment
PPE	Personal Protective Equipment
PSE	Process Safety Event
PTW	Permit to Work
R&D	Research and Development
RCR	Recordable Case Rate
REACH	EU Registration, Evaluation, Authorisation and Restriction of Chemicals Directive
SAQ	Self-Assessment Questionnaire
SBR	Styrene Butadiene Rubber
SBU	Strategic Business Unit
SEC	Specific Energy Consumption
SHE	Safety, Health and Environment
SHEMS	Safety, Health and Environment Management System
VOCs	Volatile Organic Compounds

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