

TO INSPIRE AND DELIVER SUSTAINABLE CHEMISTRY



Welcome to Thomas Swan's first Sustainability Report

In 2016, we launched our current five-year rolling strategy which placed greater emphasis on sustainability.

Our Purpose is to inspire and deliver creative and *sustainable* chemistry.

Our Vision is to be a pioneering, globally-recognised, *sustainable* manufacturer of speciality chemicals.

But what is a “sustainable manufacturer of speciality chemicals?” – and why is it important that Thomas Swan embraces sustainability?

We believe sustainability means three things: to be a successful company for the long term; to reduce the impact of our operations on our planet; and to look after our people and community.

Our strategic targets fall into six defined areas that this report aims to cover from a sustainability perspective:

1. Developing our people
2. Achieving operational excellence
3. Embracing sustainability
4. Strategically targeting markets
5. Developing an innovation-driven culture
6. Playing to our strengths



25%

RENEWABLE ELECTRICITY SUPPLIED IN 2016
THROUGH THE NEW ANAEROBIC DIGESTER

See page 8





WE FIRMLY BELIEVE that growing our business in a sustainable, commercially viable way – while reducing its impact on our environment – is our responsibility and the right thing to do. The good news is that we are already reasonably good at both of the above points! This is important, as sustainability is not something we can achieve by changing everything we do overnight. It is a journey that allows us to continue what we are doing, whilst making incremental changes to improve our level of sustainability on a continuous basis. We should also shout about the things we are already doing well, such as sourcing a quarter of our electricity from a 100% renewable energy source – the Anaerobic Digestion (AD) plant.

Sustainability covers everything we do, from process safety and maintenance, to sourcing renewable energy and using less toxic chemicals where commercially viable. We should all continuously ask ourselves “Can we do what we are doing in a more sustainable and commercially viable way?”. This could be anything from reducing our waste and use of water, steam and electricity, to sourcing sustainable chemicals - and moving gradually over to natural, renewable sources of raw materials, where it makes commercial sense to do so. It will shape our investment decisions, to ensure we don't overstretch the company by taking on too much debt – and it will encourage us to invest in equipment and facilities, which reduce our energy consumption and improve our operational efficiencies.

Being sustainable is not just about being green. It is about being commercially successful too. Our job is to balance our activities so Thomas Swan maintains business in a continuous and sustainable way, to ensure the longevity of the company.

Consumers, and therefore companies, are increasingly demanding that their suppliers operate in a sustainable way by considering their social, financial and environmental responsibilities. By sourcing from a sustainable supplier, companies are less likely to be let down and the raw materials they buy will help them meet their own sustainability targets. Put simply, sustainability is a market-driven requirement to which we must adapt – otherwise we will be left behind.

If we highlight our existing sustainability credentials and ensure continuous improvement against selected targets, it will give us a significant competitive advantage.

This is the first Sustainability Report that Thomas Swan has produced. It is designed to highlight where we are doing well against our targets and where we need to try harder. By publishing data on key parameters like quantity of waste created per ton of product made, utility use, employee engagement levels and safety levels on site, we raise awareness of them and are therefore more likely to achieve the targets that we set ourselves. I also think it is important to be open and honest about our sustainability credentials, so that our suppliers, customers and local residents get a clear understanding of how we are doing and what we are trying to improve over time.

As always, a company is defined by its people. We can only improve with the engagement of our 170 employees, who I would like to thank for their continued support. I hope that this report will inspire our employees to engage with our sustainability journey even more, as we strive to be a company that ultimately will have a positive impact on our environment.



HARRY SWAN
MANAGING DIRECTOR



Developing our people:

Helping us to grow through continuous personal development and improved communications

Our people are an essential element in creating a sustainable future for our company. Not just by engaging them in our 'green' initiatives but also in developing their skills and job satisfaction.

In 2016, we set four clear objectives to develop our people:

- Achieve an improved communication score on HIVE HR
- Achieve a target of two hours training per month per employee
- Introduce Personal Development Plans for everyone
- Introduce Apprenticeships in all areas of the business



Achieve an improved communication score on HIVE HR

Improved internal communications is one of our key strategic targets. We think it's essential for any organisation, especially one which is looking, as we are, to change, improve and grow.

The HIVE HR web-based employee survey tool enables us to measure the success of our communications.

We installed it in November 2016 and asked all of our employees how they

rated communications. At this stage we were awarded a score of 5.3 out of 10. Since then we have asked the same question again in May 2017, allowing us to measure the impact of our initiatives. Our employees have now given us an improved rating of 7.7 out of 10, and we are looking forward to increasing this score again this year.

Achieve a target of two hours a month training per employee

Providing ongoing support and training, to continually improve the skills and knowledge of our people is essential to their development. Last year, we decided to put all employees through a 3-day LEAN Sigma training course as part of our Operational Excellence strategic objective.

We are proud to say that we achieved our training target in 2016 with 2.46 training hours per employee per month.

We are only just starting our LEAN journey but it promises to dramatically change how

Thomas Swan works, improving safety and increasing productivity.

2.46

TRAINING HOURS
PER MONTH
PER EMPLOYEE



"We are a family firm and every member of the Thomas Swan team is a member of that family."



170
PERSONAL
DEVELOPMENT PLANS

Introduce Personal Development Plans for everyone

We believe that all employees should have the opportunity to have a constructive conversation with their line manager on their personal development and their aspirations for their role – and to hear feedback on how they are doing.

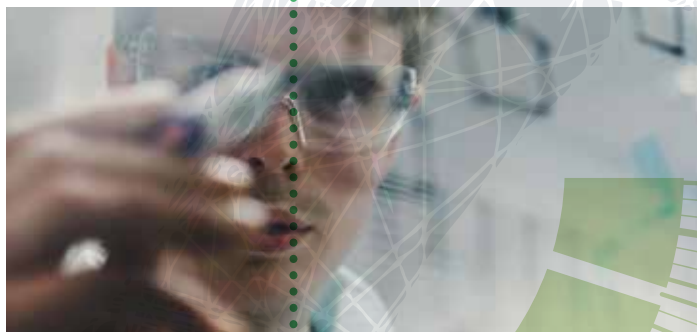
That’s why we have been rolling out our Personal Development Programme. All employees have now received a Personal Development Review through their line manager between April and May 2017.

Introduce Apprenticeships in all areas of the business

A vital component in any sustainable business is the nurturing of skills for the long-term. Apprenticeships are a natural way to achieve this.

Thomas Swan has developed an excellent relationship with Consett-based Derwentside College, which provide most of our apprentices.

We don’t just intend to offer electrical and mechanical apprenticeships, but to introduce the scheme across all areas of our business.



+3

APPRENTICES
2015



+3

APPRENTICES
2016

Achieving operational excellence: Setting world-class standards within our everyday operations

Sustainability reaches into every aspect of how we work, from reducing waste and resource usage throughout our processes and systems, to the way we train and encourage our people, and how we ensure that they work in a safe and productive environment.

In 2016, we aimed to improve our operations across five areas:

- Achieve 5% reduction in waste across the site
- Achieve 5% reduction in utilities across the site (gas, water, electricity and air)
- Achieve year-on-year reduction in Volatile Organic Compounds (VOCs) use and emissions
- Achieve zero injuries and incidents
- Identify suitable benchmark or criteria for world-class assessment



1.8%
REDUCTION IN 2016 – BELOW
TARGET BUT STILL POSITIVE

..... Achieve a 5% reduction in waste across the site

With our diverse product portfolio, we have a complicated waste stream which is challenging to address.

Although we've not achieved our 5% waste reduction target, we've made a positive start with a 1.8% reduction in

2016. Over the coming year, we will be targeting the three top products by cost of waste to try to reduce total waste leaving the site – which should see us making substantial progress towards our 5% target.

Achieve a 5% reduction in utilities across the site (gas, water, electricity and air) – see the performance data visualisation on page 13

Our complex operations require a range of utilities, with variable consumption depending on the products being manufactured. So in 2016, gas consumption rose by 2.4% compared to 2015, and electricity by 13.6% – though 25.5% of this was generated by the AD plant, and is therefore considered carbon neutral. Our target for 2017 is to reduce the use of both gas and electricity by 5% – with the

added benefit of far higher electricity production by the AD plant.

Water consumption was reduced by 21.7% and steam by 5.4%, thanks to a programme of improvements including enhanced efficiency and procedures. We're aiming for a further 5% reduction in 2017 and we're also beginning to measure compressed air consumption – with a target of 5% reduction in 2018.



5.3%
YEAR-ON-YEAR REDUCTION IN VOC
USE AND EMISSIONS

..... Achieve year-on-year reduction in VOC use and emissions

The quantity of Volatile Organic Compounds (VOCs) released to the atmosphere was reduced by almost 5.3% in 2016 – a significant achievement, largely due to the installation of a thermal oxidiser on one of our major plants, the PCMX dryer vent. We previously use the solvent Perkalone™ in our manufacturing

process and small quantities were originally permitted to be vented to the atmosphere, as part of the drying process.

We are committed to year-on-year reduction of VOC emissions.



Achieve zero injuries

One key aspect of sustainability is our belief that all employees, contractors and visitors should leave the company in the same condition in which they arrived, this means we must aim for zero accidents and incidents.

As a family business we take this responsibility really seriously. We saw just three accidents in 2016. But that's three too many - we continue to strive towards zero injuries.



3
ACCIDENTS
UP 2 OVER 2016

Achieve zero incidents

There was a small decrease in the number of incidents on site in 2016 against the previous year. We classify an incident as any event that has a detrimental impact on health, safety or the environment.

Our established near-miss reporting scheme continues to highlight issues

and implement corrective actions before they become an incident or accident.

The implementation of LEAN Sigma principles is also expected to help with this ambition as we start to see improvements to housekeeping - a widely recognised requirement in ensuring a safe working environment.



3
INCIDENTS
DOWN 2 OVER
2016

Identify a suitable benchmark or criteria for world-class assessment

When we looked into benchmarking, we found it difficult to identify one programme which suited our company and our diverse product portfolio. So instead, we have recognised the impact that LEAN Sigma principles will have on our business and embarked on an ambitious three-day training programme for all employees.

As well as improving communications and collaboration between departments and throughout the company, the LEAN Sigma principles also ensure a tidy, safe and efficient working environment.



Embracing sustainability:

Setting targets that exceed industry standards

Setting targets and measuring results against those targets will help us stay on course with our sustainability journey. Ultimately, we want to be a company that lasts for many more decades and has a positive impact on the environment. These initiatives are designed to help us achieve our goals.

In 2016 we set ourselves five targets:

- Ensure financial leveraging remains below 25%
- Achieve 100% renewable electricity on site
- Introduce sustainability criteria for new product development
- Develop and implement sustainability awards
- Generate annual sustainability report

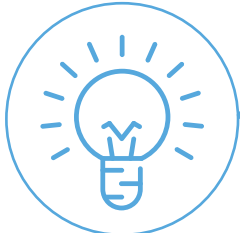
FINANCING CURRENTLY STANDS AT

0%

••••• Ensure financial leveraging remains below 25%

As a long-established, family-owned and run company, we understand the importance of maintaining control over the business and not taking on too much debt – ensuring that the business itself is sustainable. We have traditionally grown organically, but we also recognise the need to accelerate growth by a low level of borrowing.

Last year we maintained our position of zero debt. We will consider debt financing for our planned expansion into the USA in 2017 and to support significant capex investment in our Consett facility, but aim to keep financial leveraging below 25%. In the meantime, we'll look to maintain healthy cash reserves.



25%

RENEWABLE POWER SO FAR

••••• Achieve 100% renewable electricity on site

The commissioning of the AD facility was a major step forward in our sustainability journey. It is capable of supplying 100% of our electricity requirements for manufacturing, but unfortunately during 2016 the plant had some significant technical issues that resulted in only 25% of our electricity being sourced from it. The owners of the plant, Generation X, are working on these issues and our aim is still to achieve 100% renewable energy supply on site.

The Administration Offices are the only part of our Consett site that is not connected to the AD plant, so we continue to look at ways to switch over to renewable power. In the meantime, we are pleased to report that our LED replacement programme has changed all of the Administration Office lights over to LEDs. We will continue to drive this programme forward for the rest of the site.

What is Anaerobic Digestion?

Anaerobic Digestion is a series of biological processes in which micro-organisms break down biodegradable material in the absence of oxygen. One of the end products is biogas, which is combusted to generate electricity and heat.

The Anaerobic Digester on our Consett site is capable of supplying 100% of the company's U.K. manufacturing electricity requirements.



23
ENTRIES SO FAR
 THOMAS SWAN
 SUSTAINABILITY AWARDS

Introduce sustainability criteria for new product development

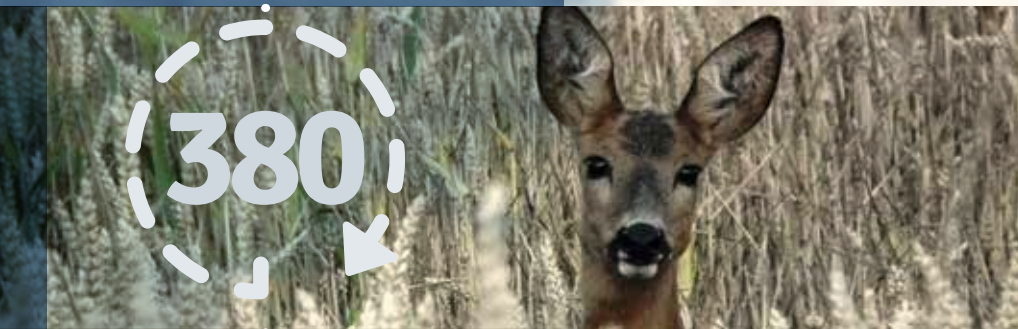
We asked ourselves: *“how do we know how sustainable our products are?”* The answer was to design our own assessment criteria, scoring factors like the distance raw materials need to travel, the amount of waste produced per tonne of product made, where our raw materials come from, and so on. We then scored and ranked our top 10 products. The combined total score was 380 and we are now looking to improve this score on an ongoing basis. Scoring products against these criteria also helps us identify the worst performers, so we can prioritise them for attention – and try to improve their inherent sustainability score.

Develop and implement sustainability awards

Key to promoting the importance and understanding of sustainability is to engage all employees in our sustainability initiatives. In 2016, we launched internal sustainability awards which recognise, encourage and reward

ideas from employees that improve the sustainability of the company. The awards have been embraced enthusiastically and we’ll be judging the entries over the coming months and announcing the winners in the summer.

FIRST SUSTAINABILITY REPORT PRODUCED MAY 2017



• TOP 10
 • SUSTAINABLE
 • PRODUCT SCORE

Generate annual sustainability report

Here it is – our first sustainability report! As a private company, we previously didn’t see a need for one, but we now understand the importance of reporting our key sustainability targets and scores. Firstly to highlight them, then to improve them and finally to show our employees, customers and all other stakeholders that we are serious about our sustainability journey.

Strategically targeting markets:

Developing our business and profile through our sustainability credentials

We want Thomas Swan to be the supplier of choice for customers who share our commitment to sustainability. This means promoting and enhancing our credentials as well as developing innovative new products and solutions.

In 2016 we aimed to target relevant markets in three ways:

- Secure new business due to our sustainability credentials
- Achieve sustainable company approved status
- Identify one new plant-derived product and deliver business case

Secure new business due to our sustainability credentials

During 2016, we were delighted to secure new business from a Contract & Toll customer, who understands the importance of sustainability. In discussions, they noted that one of the things that helped them select Thomas Swan was our approach to sustainability and our existing credentials. We also passed a major Corporate Social Responsibility (CSR) audit that commended us on our sustainability score. Evidence that sustainability is good for business!

Achieve sustainable company approved status

So far, our research hasn't identified a programme which delivers "sustainable company approved status". We have, however, been audited by EcoVadis - which noted a number of areas for improvement. We'll be continuing with this audit every year so we can show the progress we're making on our overall sustainability journey - as seen through the eyes of an independent third party.



APPROVED STATUS

1
NEW BUSINESS
GAINED AS A
RESULT OF OUR
SUSTAINABILITY
POLICY



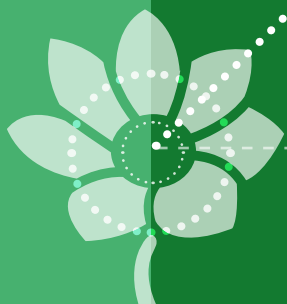
Thomas Swan's social responsibility extends as far as purchasing. This means we select goods or services that respect the highest social, ethical and environmental standards, where possible. Just as Thomas Swan aims to be judged on our commitment, we ask that our suppliers are responsible within their businesses, and by working together, we will be able to have a positive impact on our environment.





Identify a new plant-derived product and deliver the business case for it

During 2016, we looked into the development of a product derived from the basil plant, using a novel growing system developed in the USA. Unfortunately, the business case was not successful, but we are determined to achieve this target. We believe in the future of plant-derived products and we're now considering a three-year research programme with a local university to systematically look at developing 'green' products with commercial potential.



3 year

UNIVERSITY RESEARCH PROGRAMME EXPLORING PLANT-DERIVED PRODUCTS

Developing an innovation-driven culture:

Adding value through innovation

We are putting the excellent ideas submitted to us from our employees into action – our people, and their input on how we work, are an invaluable resource for Thomas Swan.

We're developing a company culture where innovation is encouraged, recognised and celebrated. The specific sustainability targets in 2016 were to:

- Develop and implement innovation awards
- Achieve successful implementation of 20% of approved new ideas from employees

Develop and implement innovation awards

Innovation, we believe, is any idea which adds value to the company – no matter how large or small. It all counts. Encouraging our employees to suggest ideas for improvement represents a major culture change for the business – and we have introduced our new Innovation Awards, designed to celebrate success and to show our employees that we are listening to and implementing those ideas.

16
ENTRIES



April 2017 has seen the launch of our new Suggestion Management System which captures both anonymous suggestions from HIVE and attributable suggestions entered directly into the system.

Achieve successful implementation of 20% of approved new ideas from employees

Individual employees are always best placed to identify possible improvements in their area.

We recognise the importance of capturing this valuable, and previously relatively untapped, resource and in 2016 we implemented 22.5% of their approved new ideas.



22.5%

IMPLEMENTATION OF APPROVED NEW IDEAS FROM EMPLOYEES IN 2016

Waste

The total waste produced per tonne of product manufactured reduced by 1.8% during 2016.

Efforts are to be introduced to reduce product waste per tonne product by a further 5% during 2017 with a particular focus on the top three waste generating products.





Current performance data:

Showing progress being made towards greater sustainability in usage of utilities



GAS

2.4%

REDUCTION IN GAS
USAGE PER PRODUCT
TONNE SINCE 2015



ELECTRICITY

13.6%

INCREASE SINCE 2015 –
BUT 25.5% SOURCED FROM
ANAEROBIC DIGESTER



WATER

21.7%

REDUCTION IN VOLUME
PER PRODUCT TONNE
SINCE 2015



COMPRESSED AIR

0%

USAGE TO BE
MEASURED IN
2017



STEAM

5.4%

REDUCTION IN STEAM
USAGE PER PRODUCT
TONNE SINCE 2015



Playing to our strengths:

Promoting the values that underline our drive for sustainability



Our sustainability journey has only just started but we have already achieved a great deal in our first year. It is encouraging to see so many employees developing their own ideas to improve our sustainability.

In 2016 we set ourselves three targets to help us lead the way:

- Improve communication on our existing sustainability credentials
- Five employees switch to electric cars
- Purchase electric company pool car to highlight our commitment to sustainability

Improve communication on our existing sustainability credentials

The best PR is other people talking about you! We need to forget our modesty and shout about what we are doing well – so we're getting better at issuing press releases on great projects, like the AD plant and the progress we are making with our new product pipeline. We use this PR material in all our customer presentations.

This Sustainability Report is perhaps the biggest step forward in communicating our commitment to sustainability. It shares how we are doing with all of our stakeholders, even though we have some way to go to hit our targets in some areas. Sharing our goals and

progress against these goals helps us focus on improving our sustainability.

Five employees switch to electric cars

One Leaf and one Mitsubishi Hybrid so far! Not a bad start and the new charging points send a strong message to visitors, customers and employees that we are serious about encouraging low emission vehicles. The new car park planned for 2017 will be future-proofed to enable retrospective installation of charging points in all bays, with around 10 installed initially.

Purchase an electric company pool car to highlight our commitment to sustainability

Our goal to have electric vans and VIP pool cars is under way, with a 100% electric Kangoo Renault van purchased for general use within a 50 mile range, along with a Tesla as a VIP pool car to pick up customers from Newcastle Airport and Darlington or Durham stations.



2

EMPLOYEES SWITCH TO ELECTRIC/HYBRID CARS



ANAEROBIC DIGESTER + SUSTAINABILITY REPORT



We'll be focusing on the six areas outlined in this report over the next five years, monitoring and assessing them from a sustainability perspective, and reporting back to you each year.



Our new targets for 2017 are:

1. Develop our People

- Achieve an improved communication score on Hive HR
- Achieve target of two hours per month training per employee
- Introduce Personal Development Plans for everyone and achieve 80% returns on PDRs
- Introduce Apprenticeships in all relevant areas of the business and enrol two new apprentices in 2017/18

2. Operational Excellence

- Achieve 5% reduction in waste across the site (top three products by waste cost to be reviewed in 2017/18)
- Achieve 5% reduction in utilities across the site (gas, water, electricity and air)
- Achieve year-on-year reduction in VOC use and emissions
- Achieve zero injuries
- Achieve zero incidents
- Identify suitable benchmark or criteria for world-class assessment
 - Gemba boards installed in all areas
 - 5S – installed in all office & communal areas
 - 5S – installed in 50% of all operational areas

3. Embracing Sustainability

- Maintain sustainability awards
- Ensure financial leveraging remains below 25%
- Achieve 100% renewable electricity on site
- Maintain sustainability criteria and improve score for top 10 products from 380 to 400
- Generate second sustainability annual report
- Commence a community project

4. Strategically Target Markets

- Secure new business due to our sustainability credentials
- Achieve sustainable company approved status
- Improve Ecovadis sustainability score
- Identify one new plant-derived product and deliver business case

5. Innovation-Driven Culture

- Maintain innovation awards
- Achieve successful implementation of 20% of approved new ideas from employees

6. Play to our Strengths

- Improve communication on our existing sustainability credentials
- Five employees switch to electric cars
- Install bike racks in Administration building and a new car park
- Introduce “Made in UK” packaging where appropriate

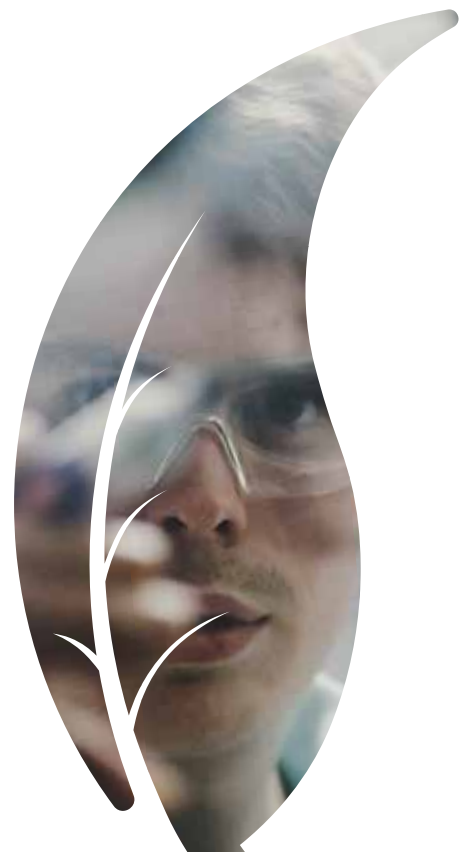


Thomas Swan

Chemical manufacturing since 1926

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