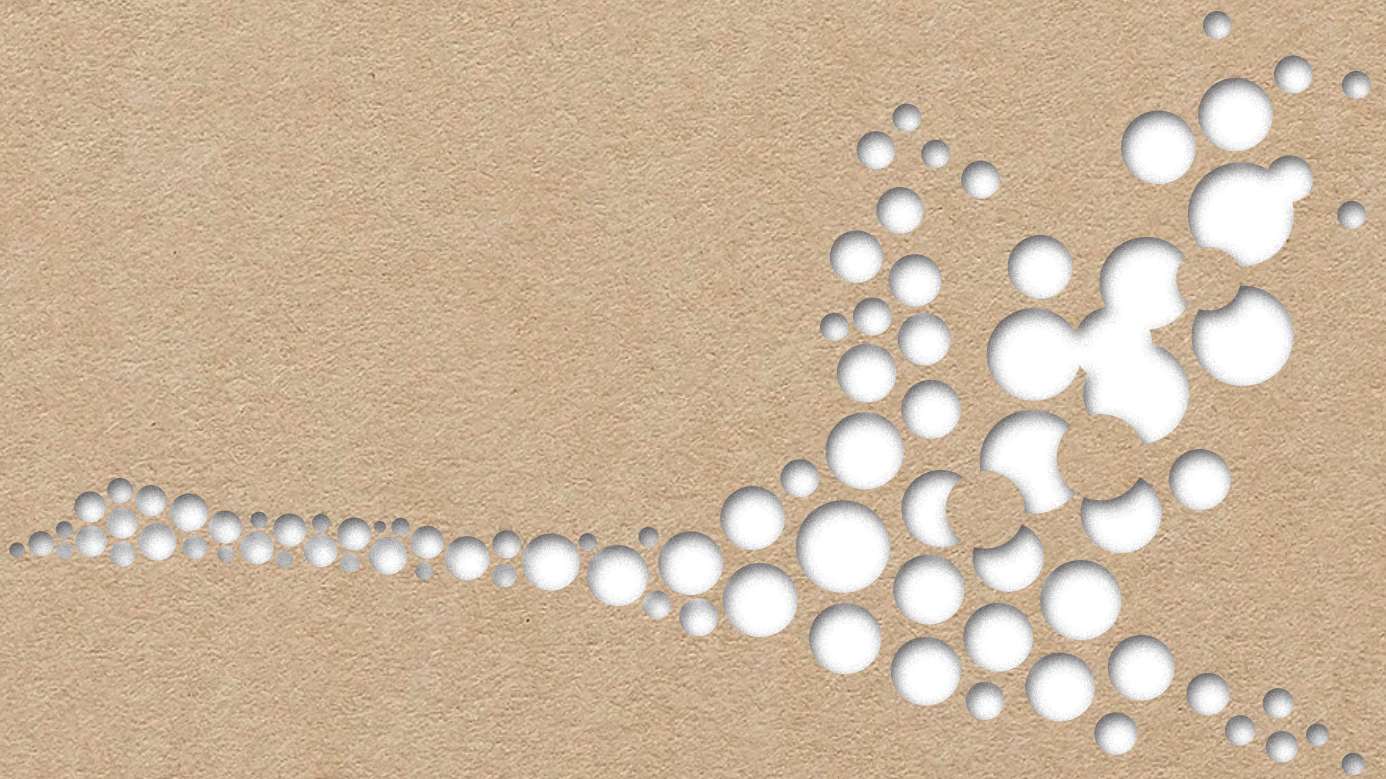
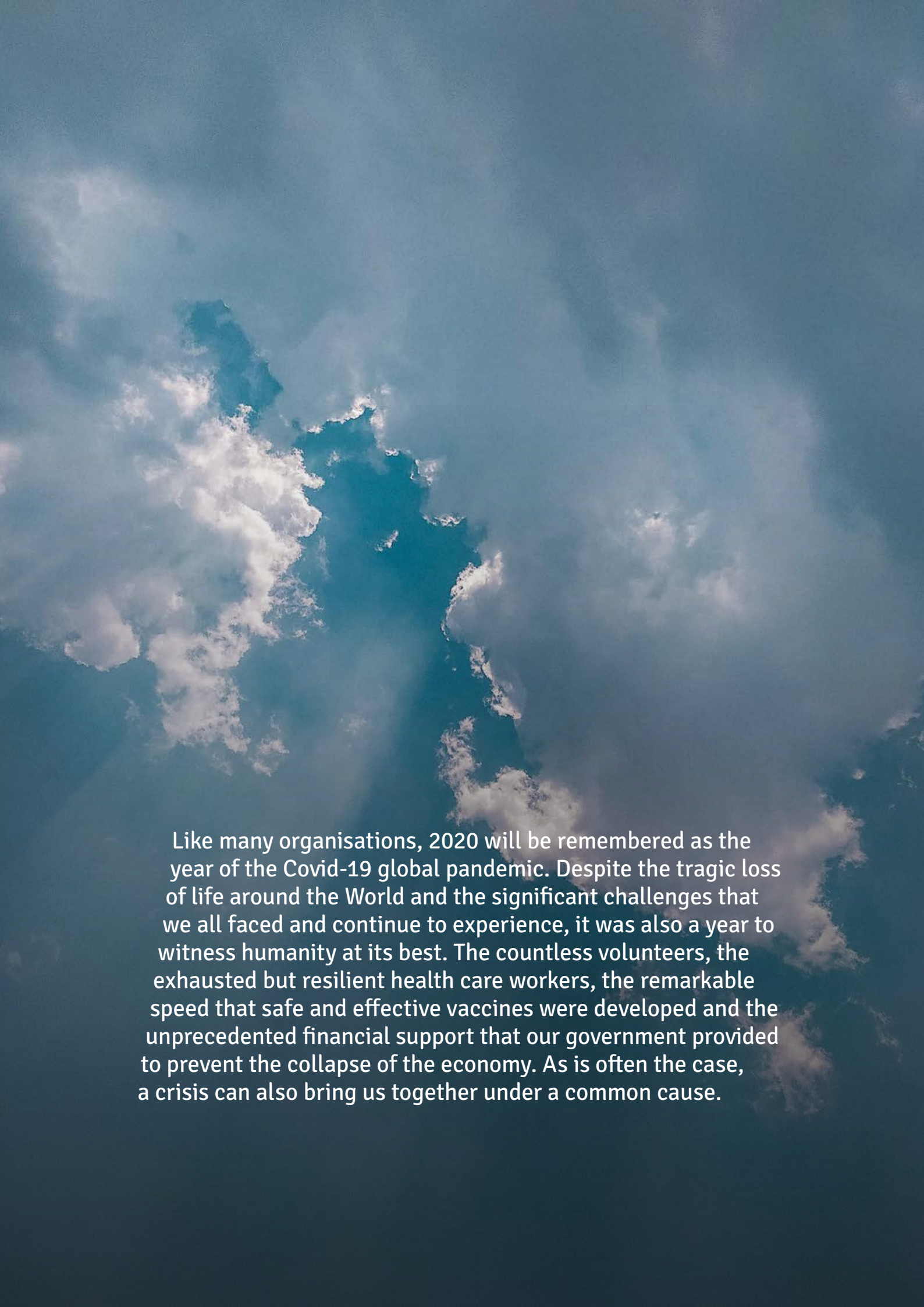


Embracing Sustainability

Sustainability Report 2020





Like many organisations, 2020 will be remembered as the year of the Covid-19 global pandemic. Despite the tragic loss of life around the World and the significant challenges that we all faced and continue to experience, it was also a year to witness humanity at its best. The countless volunteers, the exhausted but resilient health care workers, the remarkable speed that safe and effective vaccines were developed and the unprecedented financial support that our government provided to prevent the collapse of the economy. As is often the case, a crisis can also bring us together under a common cause.

The climate crisis has many parallels that will also require us to collaborate, innovate, volunteer and care for each other and our environment. Action at the individual, regional, national, and international level is required in a co-ordinated effort to counter possibly the greatest threat that humanity has ever faced. The need for all of us to act is captured in the words of my uncle the Polar Explorer Robert Swan: “The greatest threat to our planet is the belief that someone else will save it.”

At Thomas Swan, we have therefore continued our sustainability journey as we try to do our bit to reduce our impact on the planet. We are far from perfect and have a long way to go, but we have made progress every year. We will continue to challenge ourselves and report our successes and failures in this annual report, in the hope that we inspire others to do the same.

2020 saw a number of excellent achievements. The reduction in our waste (down 23%), water (down 43%), electricity usage (down 4%) and gas consumption (down 14%) was very encouraging and was principally due to innovative engineering modifications. I was also pleased to see a 6% reduction in our VOC emissions. Perhaps the biggest project of the year was the calculation of our current carbon emissions. We worked closely with the Carbon Trust to assess our scope 1, 2 and 3 emissions, which were confirmed as 5081.99 tCO₂e (market based) with most of our carbon footprint linked to our use of natural gas (Scope 1) to heat our reactions.

While a few of our targets were affected by the Covid pandemic, such as STEM engagement, personal development reviews and employee training, the three accidents and one incident recorded fell short of our target of zero accidents and incidents. We will continue to make improvements in this area to enhance safety across the company. The percentage of our electricity supplied from a renewable source also appears disappointing but does not take into account the change in ownership of the Anaerobic Digestion Plant. The new owners have made significant improvements to the plant and in the final quarter of the year our use of renewable electricity increased to 70%. We should see this rise next year as we target 100% renewable electricity across our Consett site.

As always, I couldn't do this alone and my thanks goes to all our excellent employees who are engaging with our sustainability agenda. We are making progress and I will continue to push hard to ensure Thomas Swan plays its part in tackling the climate crisis.

A handwritten signature in white ink that reads "Harry". The signature is stylized with a large, sweeping underline that loops back under the first part of the name.

Harry Swan, CEO


Harry Swan, CEO



In 2015, the United Nations established 17 key global sustainability goals that provide developmental targets for businesses and individuals alike to work together to end poverty, protect the planet and ensure prosperity for all. At Thomas Swan, we aim to ensure that our sustainability targets correlate with many of the UN goals and play our part in protecting our planet (www.un.org/sustainabledevelopment/sustainable-development-goals).

Where one of our targets aligns with a UN goal, you will see the UN symbol displayed alongside it.





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 encouraging them to engage in our 'green' initiatives, but also by supporting the development of their skills and ensuring high levels of job satisfaction.

OUR TARGETS FOR 2020 WERE:

Achieve a target of two hours a month training per employee

The COVID-19 pandemic had a significant effect on our working practices in 2020. Our priority was to implement and maintain a COVID-secure environment, whilst continuing to operate. Training of our people continued to take place at a reduced level, achieving one hour per month.

Achieve 100% return of Personal Development Reviews (PDR) by end of March 2021

To maintain a COVID-secure environment, some team members worked from home, or worked flexibly throughout 2020, meaning this target was acutely affected with only 56% returned by the target date.



Support new Apprenticeships to maintain skills within the business

It is important that the business looks to the future, this includes developing skills that will allow our strategic goals to be met. One way to do this is to bring apprentices into the company and during 2020 we recruited an apprentice into our Research and Development team.



Develop a proposal for creating a TSCL Leadership and Management training scheme for staff with potential to lead

We recognise that we need to support members of our team whose performance and positive attitude have been rewarded with promotion into Leadership and Management positions. This scheme will support leaders and develop their management skills to ensure they are competent and can function effectively in managing and influencing their teams. Unfortunately, we were unable to make progress on this objective in 2020 due to the Covid-19 pandemic.



New apprentice welcomed into the Research & Development team





Achieving operational excellence

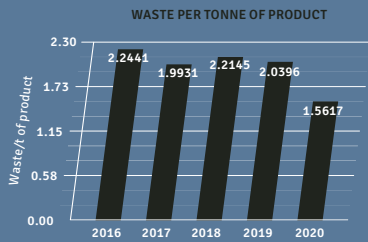
Setting world-class standards within our everyday operations

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.

OUR TARGETS FOR 2020 WERE:

Achieve 5% reduction in waste across the site

The reduction of waste produced by our manufacturing activities is a key target for our business. In 2020, the volume of waste produced fell by 23%. This was mainly due to a significant reduction in the use of water following some innovative engineering modifications. We will continue to work hard to further reduce our waste levels across the business.



Achieve 5% reduction in utilities across the site (gas, water, electricity)

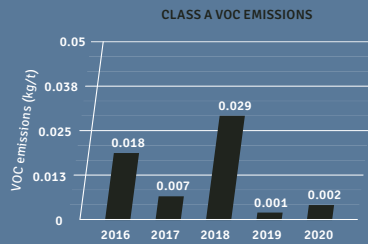
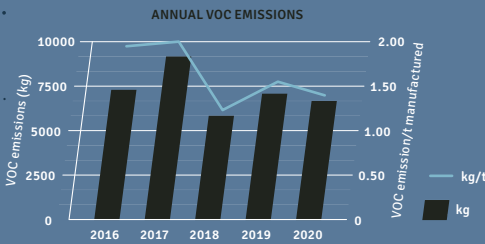
Our complex operations require a range of utilities, with variable consumption depending on the products being manufactured. 2020 saw a 14% reduction in gas consumption, a 4% reduction in electricity consumption and a 43% reduction in water use. The reductions in utility usage are a result of implementation of our energy and water reduction strategies plus improved utility meter readings across the site.

Utility	2019 (t)	2020 (t)	Difference (%)
Gas (MWhr/t product)	4.42	3.79	-14
Electricity (MWhr/t product)	1.38	1.33	-4
Water (t/t product)	16.71	9.56	-43



Achieve year-on-year reduction in VOC emissions

In 2020 we achieved our target to reduce VOC emissions, which decreased by 6%. This result would have been influenced by the mix of products manufactured. Our Class A VOC emissions rose from 0.0014 kg/t to 0.0021 kg/t. These levels remain very low, equating to less than 10 kilogrammes of Class A solvent emissions in 2020.



Achieve year on year 5% reduction in Chemical Oxygen Demand in wastewater

Chemical Oxidation Demand (COD) is a test that measures the amount of oxygen required to chemically oxidise the organic material present in water. Higher COD levels indicate greater levels of organic materials are present in our wastewater. Our performance in 2020 showed a reduction of 49% in the quantity of COD in wastewater per tonne of product manufactured. We used significantly less water in 2020 which resulted in the monthly average COD in wastewater increasing by 11%.

	2019	2020	Δ (%)
COD in wastewater (t/t)	10.5	5.4	-49
COD in wastewater (monthly ave. mg/l)	3936	4357	11



Achieve zero injuries

Thomas Swan believes that all employees, contractors, and visitors should leave the company in the same condition in which they arrived. This means we always aim for zero accidents and incidents. As a family business we take this responsibility very seriously. Unfortunately, in 2020 there were three accidents which have been fully investigated and corrective actions have been implemented. In 2020, we completed the capacity expansion of our PCMX facility. This was a complex undertaking which involved large numbers of contractors on site for a significant proportion of the year. Thomas Swan maintained its health and safety performance despite the increase in activity linked to this expansion.



Achieve zero incidents

We classify an incident as any event that has a detrimental impact on health, safety, or the environment. In 2020 we had one incident under this classification. Our established near miss reporting scheme is used proactively to reduce the probability of the occurrence of accidents and incidents.

**5%
REDUCTION
IN CHEMICAL
OXIDATION
DEMAND**

An aerial photograph of a vast, dense evergreen forest, likely a coniferous woodland. The trees are a mix of dark green and lighter green, creating a textured canopy. The image is used as a background for a sustainability report or presentation. Three text boxes are overlaid on the image: a large white box at the top containing the title, a semi-transparent grey box in the middle containing a key message, and a white box at the bottom containing a detailed paragraph. The bottom right corner of the image features a decorative green border with a pattern of white circles of varying sizes.

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.

OUR TARGETS FOR 2020 WERE:

Maintain sustainability awards

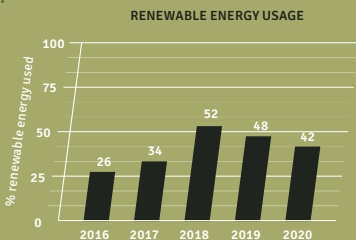
In 2016, we launched annual internal sustainability awards which recognise, encourage and reward ideas from employees that improve the sustainability of the company. Applications for the awards continue to be submitted. As a result of the pandemic, our annual summer BBQ was cancelled so the prize winners were notified of their success by email and the winning entries displayed on site wide electronic notice boards.

Ensure financial leveraging remains below 25%

Despite significant investments across our business that required some bank financing, we still achieved our self-imposed target of maintaining leveraging below 25%.

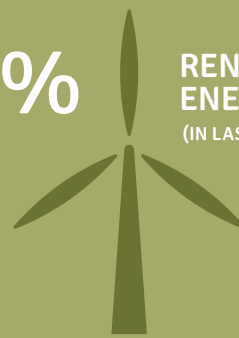
Maintain year on year improvement in renewable electricity use on site

The Anaerobic Digestion plant changed ownership during 2020. Thomas Swan continue to work with the new owners of the Anaerobic Digestion plant towards achieving this target however, in 2020 we only used 41.9% renewable electricity. The performance improved over the last quarter of 2020, with a monthly average of 70% renewable electricity used on site. Due to the new owners, we are now confident that 2021 will be maintained at or above this rate.



70%

RENEWABLE ENERGY USAGE
(IN LAST Q 2020)



Improve the efficiency of Thomas Swan's top two products.

In 2020 we improved the efficiency for our top 2 products as process improvements developed in 2019 were implemented, particularly during the PCMX capacity expansion. Continuous improvement teams are now in place for these processes.



Develop a plan to achieve net zero carbon by 2030

On our journey to net zero carbon emissions, it was important to calculate our base line carbon emissions against which we could then measure our progress as improvements are made. Thomas Swan worked with the Carbon Trust to accurately measure our greenhouse gas (GHG) emissions from our activities at our Consett site only. The measurement of our carbon footprint consists of three areas (scopes) which are defined as:



- **Scope 1 emissions** are direct greenhouse gas (GHG) emissions that occur from sources that are controlled or owned by Thomas Swan.
- **Scope 2 emissions** are GHG emissions from the generation of purchased electricity, steam, heat, and cooling.
- **Scope 3 emissions** are GHG emissions from other indirect emissions. We considered only Thomas Swan Business Travel by aeroplane, train, and car for this assessment.

Develop a plan to achieve zero waste to landfill by 2030

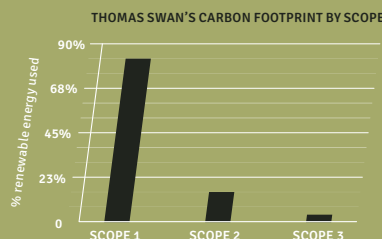
Greater than 95% of the Thomas Swan's waste is handled by one contractor who has informed Thomas Swan that none of our waste goes to landfill. We plan to work with this contractor to verify and monitor this. The remaining waste streams are disposed of in a sustainable manner.



Our carbon footprint has been verified as 5081.99 tCO₂e (market based) with the majority of our carbon footprint linked to our use of natural gas (Scope 1). Thomas Swan has decided against a Carbon Offsetting strategy at this stage and will continue to drive down its carbon footprint to a minimum before implementing carbon offsetting for any residual carbon emissions that cannot be reduced.



Current carbon footprint verified by the Carbon Trust





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.

OUR TARGETS FOR 2020 WERE:

Secure new business due to our sustainability credentials

Presentations by our CEO, Harry Swan, on our strategy to move towards plant and bio-derived products resulted in several companies approaching Thomas Swan to collaborate on projects that are consistent with our strategic direction.



Investigate and implement improvements in areas identified by Ecovadis in the 2019 audit

One of the opportunities for improvement identified by Ecovadis in the 2019 audit was to implement a sustainable procurement strategy. This was successfully achieved following training from Ecovadis, which was attended by a cross functional team from Commercial, Regulatory and Logistics. Improvements in this area helped improve Thomas Swan's Ecovadis status.



Maintain Ecovadis Gold status


In 2020, Thomas Swan were awarded platinum status from Ecovadis for the first time. This significantly exceeded our target and places Thomas Swan in the top 1% of all companies in the Chemicals sector along with companies such as Croda. Platinum status means that Thomas Swan has advanced Corporate Social Responsibility practices in three of the four business areas that are assessed by Ecovadis: Environment, Labour and Human Rights, Ethics and Sustainable Procurement.



New business secured due to our sustainability credentials

Ecovadis Platinum status awarded



A close-up photograph of a male scientist with short dark hair, wearing clear safety glasses and a white lab coat. He is looking intently at a piece of paper he is holding. In the background, a hand is visible holding a glass pipette. The background is a blue wall with a green molecular structure graphic on the left. The overall scene is a laboratory setting.

Developing an innovation-driven culture

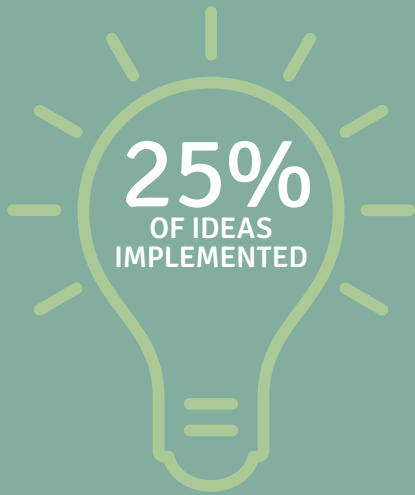
Adding value through innovation

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 are continuing our journey to develop a culture where innovation is encouraged, recognised, and celebrated.

OUR TARGETS FOR 2020 WERE:

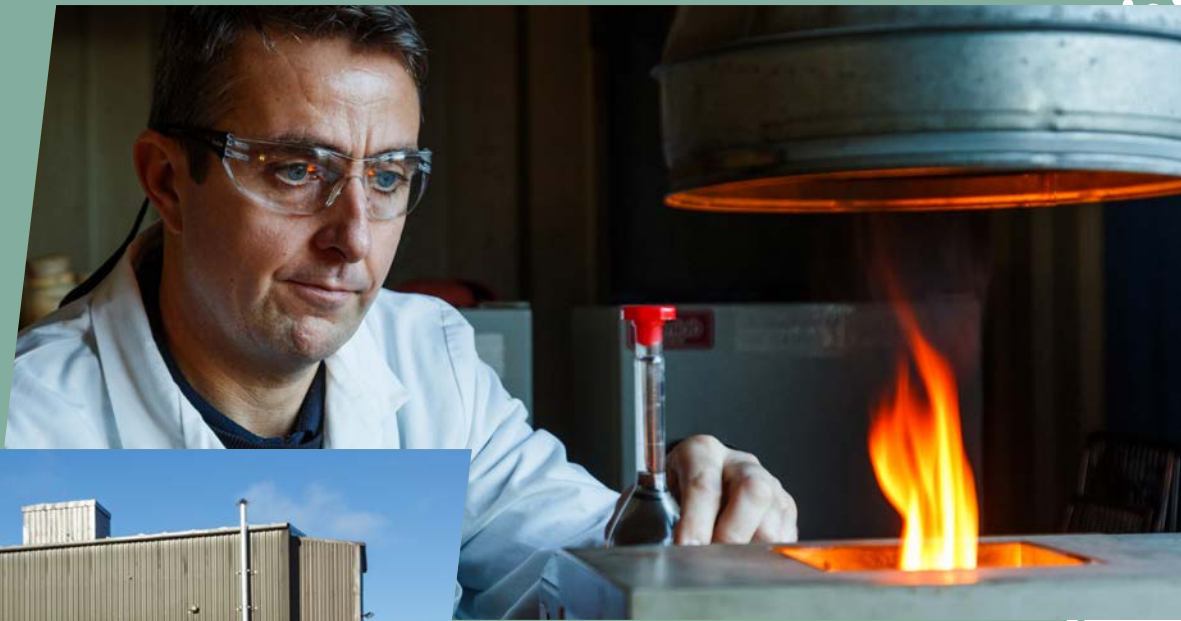
Maintain innovation awards

Despite the pandemic, applications from Thomas Swan staff continued to be made in 2020. We are promoting 2021 awards at the time of writing. These awards are designed to celebrate success and to show our employees that we are listening to and implementing their ideas. Last year's innovation award applications included ideas to improve manufacturing in our Advanced Materials and Powders products.



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

We believe that our employees are best placed to identify improvements that could be made both in their work areas and within the wider business. In 2020, the system that we designed and implemented to capture and process ideas from our employees put into practice 25% of suggestions. This exceeded our target of 20%, which is an excellent performance whilst operating in a COVID secure environment. Notable suggestions from 2020 that were actioned include manufacturing and supplying free-of-charge hand sanitiser to local businesses and front line workers, and adopting a more flexible way of working.



Playing to our strengths

Promoting the values that underline our drive for sustainability

Our sustainability drive is now becoming more established within the business. Our sustainability targets, as well as the annual sustainability awards, are giving employees the opportunity to develop their own ideas to improve our sustainability credentials.



OUR TARGETS FOR 2020 WERE:

Develop a Stakeholder Communication Plan to achieve the carbon net zero target by 2030

A cross-functional team has been established to support the development of the net zero carbon plan, which is based on the information from measurement of Thomas Swan's carbon footprint.

Increase the number of employees switching to electric and hybrid cars

As this document was published, five more employees have switched to an electric car as well as several employees actively investigating the possibility of buying an electric vehicle. We will continue to develop our charging facilities at Consett to encourage the adoption of electric cars.



Encourage and facilitate work experience student visits to Thomas Swan and Promote careers in STEM to the local community (schools, colleges etc.)

Progress on these targets was not possible because of COVID-19 restrictions. Contact with Schools, Colleges and Universities was highly restricted during 2020 preventing any progress. We will of course re-engage with STEM engagement as soon as restrictions allow.



Five employees have switched to electric cars

2021 Sustainability Targets



Business Development

- Green Feather Innovations to assess 20 potential projects by March 2022.
- Introduce a New Products Innovation process via Green Feather Innovations by September 2021.
- Identify and promote three examples of new competencies and capabilities.



Excellence Through Continuous Improvement

- Target zero accidents.
- Aim to keep rejections below 2% across full product portfolio.
- Develop, agree, and implement a plan (including training) for use of Continuous Improvement across all departments.
- Maintain staff participation in the annual awards for Innovation, Operational Excellence and Sustainability.
- Implement three new digital systems, which are able to integrate with existing systems.
- Update and refresh corporate literature.
- Implement an action plan to improve customer service, based on the results of the most recent customer survey.



Sustainability

- Develop road map to achieve net zero carbon emissions by 2030.
- Develop a plan to replace gas boilers and integrate biogas.
- Achieve year-on-year 5% reduction in COD in aqueous waste per tonne of product made.
- Achieve year-on-year 5% reduction in utilities used across the site (gas, water, electricity, cryogenic nitrogen) per tonne of product made.
- Achieve year-on-year 5% reduction in VOC use and emissions per tonne of product made.
- Achieve year-on-year 5% reduction in waste produced across the site per tonne of product made.
- Maintain year-on-year improvement in renewable electricity use.
- Ensure financial leverage remains below 25%.
- Agree and deliver a community project.
- Ensure financial leverage remains below 25%.



People Development

- Achieve target of two hours of training per month, per employee.
- Achieve 100% returns of personal development reviews by the end of March 2022.
- Draft, discuss, approve and communicate a clear employee grading structure of positions across the business.
- Draft, agree and publish a road map to improving diversity and inclusion in all areas.
- Draft, discuss, approve and communicate a “Positive People” programme.
- Strive to take on apprenticeships to maintain and develop skills within the business.
- Develop a proposal for creating a Thomas Swan Leadership and Management training scheme, for staff who demonstrate the potential to be future Managers.

