



BOLSIUS IMPACT REPORT
MARCH, 2023

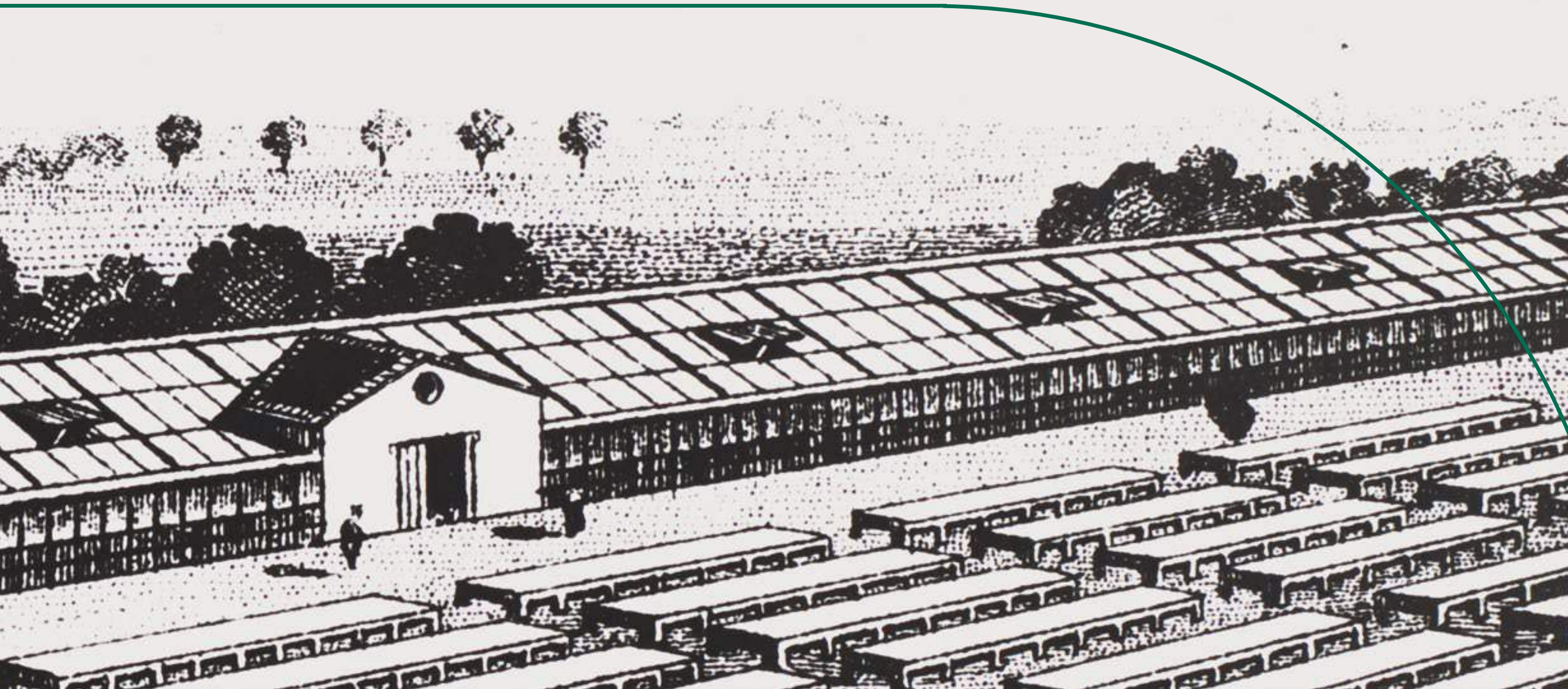
FUTUREPROOF
CRAFTSMANSHIP
WITH LOVE
FOR PEOPLE AND
PLANET



bolsius
since 1870

REFLECTION ON THE PAST, A WORD FROM VINCENT KRISTEN, OUR OWNER.

“With our rich heritage of over 150 years, at Bolsius we strongly believe that our responsibility is to keep our world a liveable, healthy and safe place for future generations.”



Bolsius is a family-owned business that started in 1870, which means we have over 150 years of rich heritage and experience. Quality and craftsmanship are at the very centre of everything we do. Candle making traditionally is a craftsman's trade and it still is.

Over the years we have become more efficient and optimised our processes along the way. But the underlying processes still require a certain vital craftsmanship. Being a leading candle company with love for people and planet comes with a responsibility. We have a duty, for current and future generations. Does this mean that we have it all figured out yet? No. Does it mean we are pushing for change, measuring how we can improve our impact and strive to do better each and every day? Absolutely.

Change doesn't happen overnight

Creating products of unimpeachable quality in a fast-changing world means we are always transitioning and innovating. Our dedicated team is not only making the safest and best quality candles out there. We think about e-ver-y single

detail and step in the process. From the wick we use to effective transportation and our impact on the community. One thing is for sure: change doesn't happen overnight, and we operate in a complex system. The road ahead might be bumpy, and the answers might not always be black or white. But our mission motivates us to handle decision-making situations such as ensuring the minimum emissions when manufacturing, transporting and using our products, taking our responsibility to protect and preserve natural resources.

Invest in long-term impact

This report focuses on the progress we made over time and highlights milestones that make us proud. When the world was dealing with the COVID-19 pandemic, the Bolsius team

worked hard to keep delivering quality products. We learned that, when put to the test, we could still perform and create a positive impact. From material shortages, transportation challenges and rising gas prices. Despite the circumstances, we managed to create magical moments and invest in long-term impact projects. Our impact strategy is based on three pillars: reduce, care, and engage. They guide our decision-making process on all levels. From choosing suppliers that deliver responsibly sourced materials that

meet environmental and social standards, to reducing energy consumption and green house gas (GHG) emissions such as energy-efficient lighting and equipment.

Improve our performance over time

Since we need to make long-term decisions in a short-term oriented world, we structurally engage our stakeholders to gather feedback and improve our sustainability performance. We are committed and are taking all necessary steps

to improve our performance over time. Our current footprint is the result of years of improvement, challenges, and innovations, touching upon all different aspects of our GHG impact. We measure and improve our carbon

footprint in alignment with the Paris agreement to keep climate change below 1.5°C and contribute to Net Zero global ambitions. Know that we will continue to put limitless time and energy in reducing our environmental footprint, promoting responsible sourcing and production, and pioneering throughout the supply chain.

“We want to be the leading candle company with love for people and planet. Therefore, sustainability is not an option but an imperative. We strive to put sustainability in the heart of all we do.”



Vincent Kristen,
Owner Bolsius

A stylized, handwritten signature in black ink, appearing to read 'Vincent Kristen'.

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This document, the first edition of the Bolsius Impact Report, provides insights into our milestones, ambitions, goals and dreams. It describes what we have accomplished so far, challenges we face, and how we strive to leave the world a better place than how we found it. We expect to have a bumpy road ahead; but we strongly believe that our responsibility is to keep our world a liveable, healthy, and safe place for future generations.

bolsius
since 1870

Impact Highlights

01.



Progress, innovation milestones, and taking responsibility

Over the years we have pushed for innovating our products and processes with sustainability and social impact in mind. We summarise and highlight a couple of recent milestones here. Not because we want to get applauded, but because it helps us to keep track of progress, strive for mutual goals, and keep the energy and ambition in our team high.





Transforming the factory

We committed to a massive transformation of our existing factory in Poland with the goal to align on the ambitious sustainable development goals reduction target of doubling the annual rate of energy efficiency by 2030. Read more about our five steps energy reduction plan on page 28.

Nordic Swan Ecolabel

At this point there are six Swan certified products across household, tealights, and maxi light categories. The Nordic Swan Ecolabel constantly measures what we do, and we must ensure 100% traceability in all stages. This certification is a visible proof of our environmental efforts and guides us in our ambition to add more certified products to the list.

36%
CO2 emission
reduction

Dual Cargo transportation

An impactful milestone is the dual cargo transportation we implemented, which has significantly reduced the energy required to transport in between our locations in the Netherlands and Poland. We optimised our internal supply chain with a process called 'Dual Cargo' that avoids empty trailers on the road. This results in a 36% reduction of CO2 emissions. The supply chain addressed covers the shipment of raw materials from Moerdijk (NL) to our industrial site in Poland, and the shipment of ready-made goods to our warehouse in the Netherlands. Read more about our take on Dual Cargo transportation on page 29.

100% FSC carton, PVC reduction plan

We managed to move to recycled board, removed carton podiums and reduced paper grams to FSC certified materials. The Forest Stewardship Council (FSC) is an international, non-governmental organisation dedicated to promoting responsible management of the world's forests. And we investigated and launched a PVC reduction plan.



Introduction Bolsius CleanLight and StyleEco

The technology behind our double-walled glass holder of CleanLight and StyleEco ensures that the refill burns up completely, leaving only the wick plate behind and a glass candlelight to re-use. These innovations minimise the waste of wax & glass as consumers can enjoy their candle over and over again. After the candle has burnt, the glass holder can be used again and again which significantly reduces our glass usage. Our refillable glass weighs just 146 grams and the refill burns for 20 hours, whereas our 20-hour single use burn glass weighs 240 grams. This means that, after five uses, 1 kilogram of glass is 'saved'.

Pioneering with plant-based recipes

We started pioneering with rapeseed and sunflower oil from Europe. We introduced the very first Bolsius candle collection produced with local vegan wax and without palm oil. This means we replaced paraffin with a minimum of 50% plant-based ingredients/alternatives for all fragranced candles. Read about the challenges we face regarding the sourcing of raw materials on page 31.



“I’m glad that at Bolsius, people and their wellbeing are always top of mind. We work together towards a better future, constantly seeking new solutions and pushing ourselves to create more impact every day. Because, let’s face it: the future is counting on us to be awesome!”



Agnieszka Jalukowicz
Marketing Manager



Glass strategy

For our single use glass we select ISO (International Organisation for Standardisation) certified suppliers who maximise the amount of recycled glass and set targets for their energy use. One of our partners, has an energy minimisation plan and only uses energy from renewable sources. Finding a balance between safety and sustainable material input is a priority for us. We manage to use recycled glass in 20% of our glass containers at this stage since using 100% recycled glass is not realistic. Recycled glass is produced at a small scale and can contain imperfections, such as air bubbles, which could pose a safety risk for our candle products during burning.

Memorial Lights collection

We produced hundreds of millions of candles used in rituals to remember loved ones that have passed away with our Memorial Lights collection. This collection was designed to offer people a comforting ritual during the grieving process, which might be beneficial for mental health. The Memorial Lights collection consists of recycled organic wax.

1% for the Planet



Bolsius joined the 1% for the Planet movement. This is a global movement inspiring businesses and individuals to support environmental solutions through memberships and everyday actions. By donating 1% of our summer collection sales for the Planet, the money will be invested in various environmental projects. Last year we donated € 15.000 to the 1% for the Planet movement.

Charity Program

At Bolsius, we provide support to those in society who need it. Our team joined forces for our Ukrainian clients, their families, and our employees with ties in Ukraine. We donated a few thousand candles which were included in Christmas packages. Also, we donated paraffin so Ukrainian families were able to create canned candles themselves and donated necessities such as food and clothing. A local foundation received part of the proceeds from the Christmas market that we organised in Schijndel. Also, a team of 30 Bolsius employees conquered the Alpe d'Huez and collected €50.000 for KWF (Dutch Cancer Society). All money raised goes to research and implementation projects related to cancer. Last year we donated product and sponsorships worth € 180.000 to global charity projects.

A young girl with a red scarf is looking down at a row of lit red candles. The scene is dimly lit, with the warm glow of the candles illuminating her face and the surrounding area. The candles are arranged in a line, and the girl's hand is visible near them.

EUR 180.000

Last year we donated products and sponsorships worth € 180.000 to global charity projects.

About Bolsius

02.



Lighting the way since 1870

Mission: Create products of superior quality that share the magic of the flame, to reconnect people with themselves and their loved ones for now and future generations.

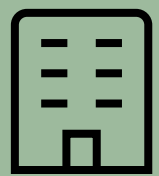
Objective: Be the leading candle company in Europe with love for people and planet.



Key facts



Factories in Zalesie (Poland), Roermond (The Netherlands) and Moerdijk (The Netherlands)



Offices in Schijndel (The Netherlands), Poznan (Poland), Essen (Germany), Legnano (Italy) and Växjö (Sweden)



1068
employees



Products being sold in
52 countries



1.443.428.479 individual
items produced (2021)

Sustainable Development Goals

Bolsius endorses the United Nations’ seventeen Sustainable Development Goals (SDGs) and, very intentionally, decides to make the most impact on the following four specific goals.



SDG 12 – Responsible consumption and production
We strive to improve the environmental footprint of our value chain and close the loop of other industries with raw materials we use in our products.



SDG 3 – Good health and well-being
Candles are part of many rituals that support mental health and wellbeing. Our main concern is the health and safety of all the people buying our products and our employees..



SDG 13 – Climate action
We measure the carbon footprint of our activity and products to aim to reach Net Zero in order to contribute to the European ambition of carbon neutrality by 2050.



SDG 9 – Industry, innovation and infrastructure
We innovate in our factories and find new ways to manufacture candles at scale, using sustainable raw materials while minimising resource use.

Heritage timeline

Over 150 years of pioneering in a nutshell



2020, 2021

Optimisation of our manufacturing footprint, introduction of vegan wax collection, moved to recycled board, removed carton podiums in packaging, reduced paper grams. Recycled glass in 20% of our glass containers, our CleanLight & StylEco innovations were introduced. We started pioneering with rapeseed and sunflower oil from Europe. Joined 1% for the Planet. Our first circular candles via project Fuenix.



2019

Minimise environmental impact on Reed Diffusers by internalising production, transportation, and plastic removal.



2009

We implemented a program at Moerdijk (the Netherlands) to use district heating from the neighbouring industries as an energy source from waste heat.



2004

Bolsius began the production of rustic candles in all colours of the rainbow. From this point, Bolsius started providing a wide range of fashionable, decorative candles to consumers in North-West Europe.



2010

Implementation of Dual Cargo transportation.



1998

Bolsius began storing heated raw materials in Moerdijk in order to guarantee the quality of the candles.



2017

First Bolsius products received the Nordic Swan certification: official ecolabel of the Nordic countries to reduce the environmental impact from production and consumption of goods.



• **CONTINUE ON THE NEXT PAGE**



1997

Bolsius sets up a manufacturing site in Poland.



1995

The market changed, and so did Bolsius. We increased in size so we could keep serving customers.



1990

In 1990, the Bolsius Group took two important steps in advancing company activities in Scandinavia: Bolsius Nordic A.B. was set up in Stockholm, while the subsidiary company, P.A. Trading-Bolsius A.B., was established in Oslo.



1984

Bolsius kept the flame alight in the church candles sector.



1961

The visit of Princess Irene and the production of special candles for the wedding dinner of Princess Beatrix were highlights in our history.



1960-1970

The company owned by the Bolsius brothers waxed and waned in the 60s and 70s before running into major difficulties in the 70's.



1978

Two candle families merged, and continued under the name of Bolsius Kaarsenfabriek B.V.



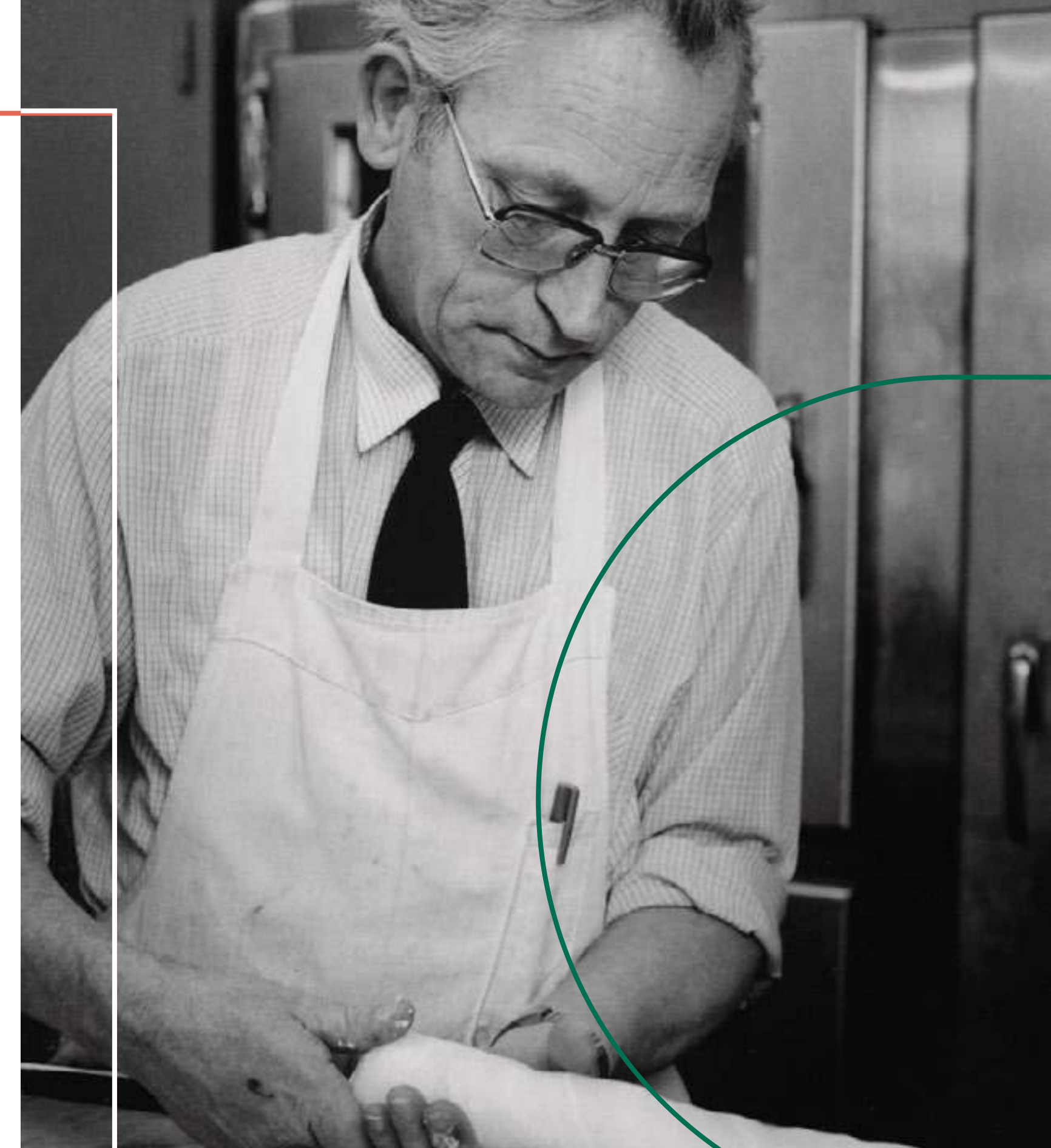
1983

Bolsius went for gold, and in this year, took over the NV Koninklijke Stearine Kaarsenfabriek Gouda-Apollo.



1959

The pressed tealight saw the light of day thanks to an invention by Lambertus Bolsius.



CONTINUE ON THE NEXT PAGE



1950 – 1960

Candles gained increased popularity in the 50s and 60s, even outside the church environment. The Bolsius brothers attained success by manufacturing decorative candles.



1940

While the war was breaking out, the company started to manufacture plaster figurines. There was barely a house in Schijndel without a 'Kniertje' (a fisherman's widow from the Dutch play *Op Hoop van Zegen*) at the window.



1927

The Bolsius brothers started making a name for themselves in manufacturing church candles. The product went down so well with church members that they granted them the distinction of papal purveyor.

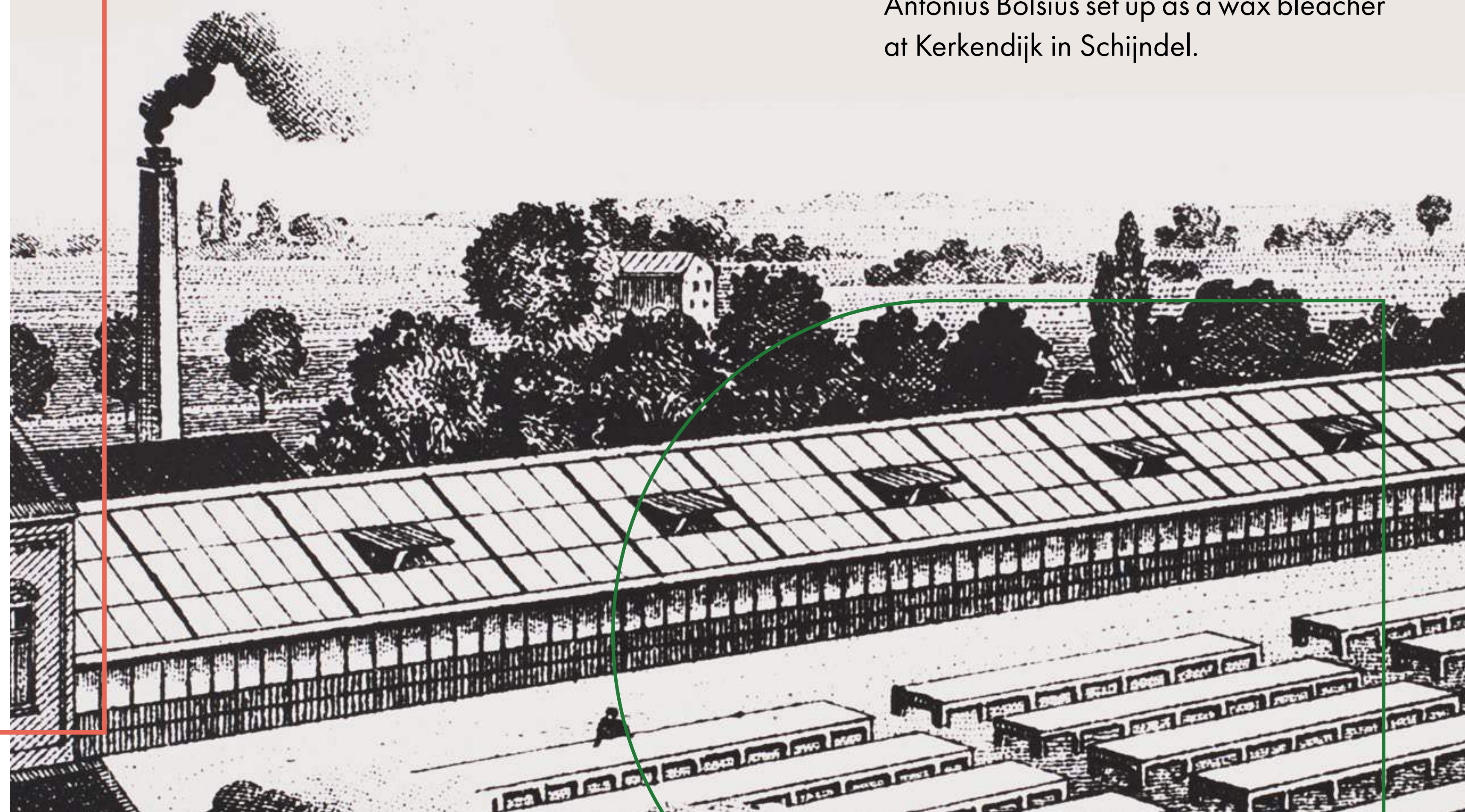


1920

It was around this year that the wax bleacher started to manufacture church candles.

1870 - 1903

Lambertus Bolsius started working with the wax bleacher. Lambertus is the eldest son of Henricus Bolsius. After his preparatory education, Lambertus went to the small seminary. Once he had completed his studies, Lambertus worked in the beer brewery of his uncle Mathijs Smits. Antonius Bolsius set up as a wax bleacher at Kerkendijk in Schijndel.



Our Impact Strategy

03.



Reduce, Care and Engage

Our impact strategy is based on three pillars: reduce, care and engage. They guide our decision-making process on all different levels. From choosing suppliers that deliver responsibly sourced materials that meet environmental and social standards, to reducing energy consumption and GHG emissions such as energy-efficient lighting and equipment.



“We love to keep creating magical moments for our customers and future generations. People and planet are the most precious things we’ve got. That’s why we pioneer with rapeseed and sunflower oil from Europe. We also use natural extracts, a cotton wick, and are rethinking eco-friendly packaging.”

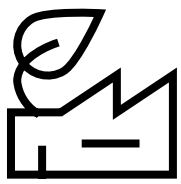


Frédéric Loos
Head of Category

We have already made a lot of progress along the way and implemented measures to reduce waste throughout the supply chain, including reducing packaging waste, introducing refillable innovations, and recycling materials where possible. We are committed to promoting fair labour practices and ensuring that our suppliers meet social and ethical standards, which is why we implemented a supplier code of conduct.

Reduce

Limit our impact on the planet



Decarbonize our business

Measure and lower our operations and overall GHG emissions to meet the Paris Agreement via circularity & innovation of our processes & products.



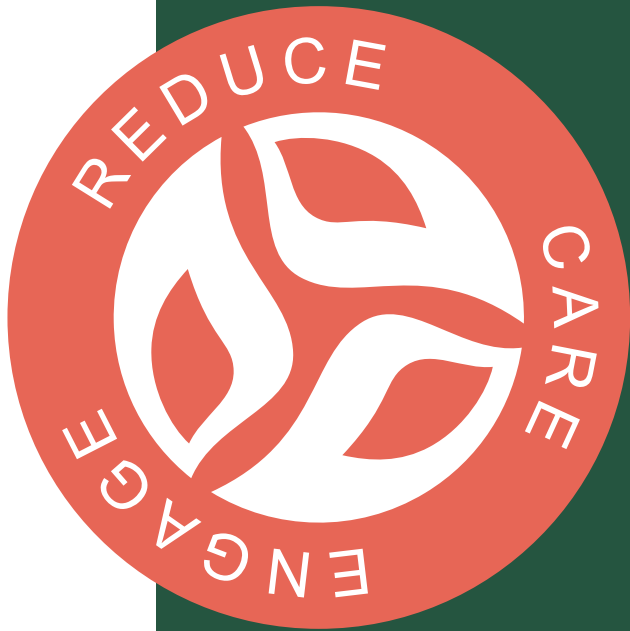
Protect water resource

Reach 100% water recycled in our operations.



Eliminate waste

Target zero waste to landfill in operations, and reduction of wastes during product life cycle.



“I’m proud to have instigated changes to our reed diffuser packaging over the last two years. We have evolved the packaging to be more recyclable and reduce our environmental footprint by removing the Plastic (PET) window and switching from virgin board to recycled board.”



Jerome Douglas
Packaging Development Manager



“I am exceptionally happy with the launch of CleanLight last year as it reflects how our teamwork drives innovations and offers better choices for consumers. This new collection offers exceptional fragrance release, is produced without palm oil, and uses refillable holders to minimise waste. The refills are made without any plastic and without any aluminium.”



Loïc Chateau
Chief Marketing Officer



"In 2021 we switched to renewable electricity at our Factory (Zalesie), which results in 80% of our total energy-consumption there now being green. Additionally, we were able to improve our gas and water consumption efficiency."



Jacek Wiecek
Operational Director Production

"As a team, we are always looking for ways to create more positive impact. We decided to look into options for companies to recycle their plastics and drink containers, such as the milk cartons from our coffee machines. Within two days we were equipped with plastic collection bags, and we can now collectively make a positive impact in this area."

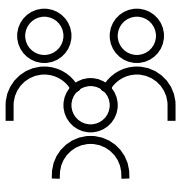


Bea van Gestel
Executive Management Assistant



Care

Care for all of us



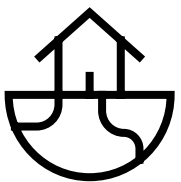
Provide a great place to work

Focus on ensuring the culture, development, diversity, inclusivity, innovation and wellbeing for existing & potential employees.



Contribute to human habitat regeneration

Work to preserve and regenerate biodiversity, natural resources & increase carbon sinks.



Support our local communities

Donate our time, products and contributions to support local communities and causes in need.



“Five years ago, we built our new office in Schijndel and one of the most important goals was to create an environment where everyone would feel comfortable. We use the latest tools and energy efficient innovations, such as automatic lighting sensors, distributed heating, energy efficient whitegoods, electric car charging stations and insulation foil on the windows. Together with our catering partner, we work on decreasing our CO2 emissions. This means we have seasonal fruits and vegetables on the menu and are transitioning to a plant-based selection of foods.”



Ido van Alphen
HR Manager



"At Bolsius we have been mastering quality candles for over 150 years and we want to do it for another 150 years! That's why we are on a journey to look after both people and planet for now and future generations; they are the most precious things we have, and we need to pioneer every day to protect them."

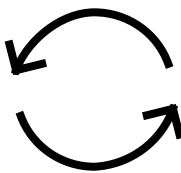
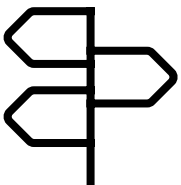


Stacie Raymond

Head of Sustainability &
Project Management Office

Engage

Interact and collaborate with all stakeholders

-  **Make employees sustainability champions**
Develop climate and sustainability awareness; putting sustainability at the heart of everything we do.
-  **Collaborate with our value chain**
Exchange environmental data with suppliers & value chain to develop joint impact reduction plans & identify circular economy opportunities.
-  **Support consumer's awareness**
Develop knowledge amongst our users.



“Sustainability, ambiance and care for people and planet are not just USPs of our candles but a key need for the Hospitality market. Nothing is more comforting than candlelight. Our sustainability journey further strengthens our brand. We make a candle of great quality and we do it with care for our planet. It makes me proud to be part of this and look forward to the journey ahead!”



Paul Christodoulou
National Account Manager,
Out of Home UK & Ireland



Environmental Management System (EMS)

04.



You can't improve what you don't measure

To limit global warming to well below 2°C and do the utmost to limit it to 1.5°C requires the world to become carbon neutral by 2050. This means that CO₂ released into the atmosphere as a result of human activities must be balanced by human-driven increase in CO₂ capture, whether leveraging technical or nature-based solutions.



Keeping track

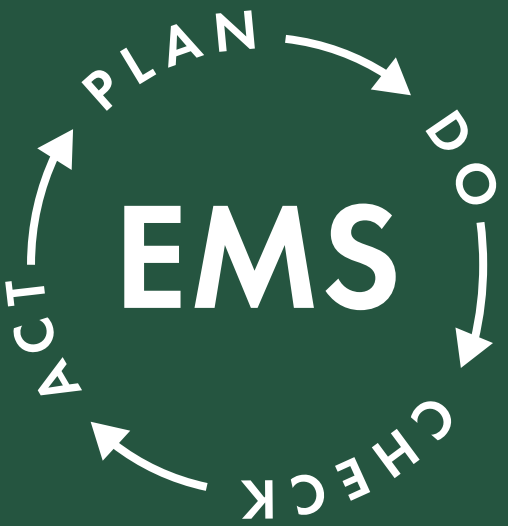
In order to keep track of our results and to limit our impact on the planet, we use the Environmental Management System (EMS) framework. The Bolsius EMS includes a model accounting for GHG emissions of our operations, from raw material supply to delivery of the products. We also conducted a Life Cycle Assessment (LCA) that provides details at an individual product level, covering the whole range of candles we produce. Furthermore, we are engaged in efforts to refine this inventory, analysing the overall impact of our products from cradle to grave.



Environmental Performance

To do our part, we are committed to reducing our impact through measuring GHG emissions, developing plans to reduce them, and dynamically managing the improvements over time. This helps us achieve our environmental goals through consistent review, evaluation, and improvement

of our performance. It is based on a continuous improvement cycle with 4 phases: Plan-Do-Check-Act. In our EMS, we measure our environmental performance in the following four main aspects: CO2 footprint, energy usage, water consumption, and waste generation.

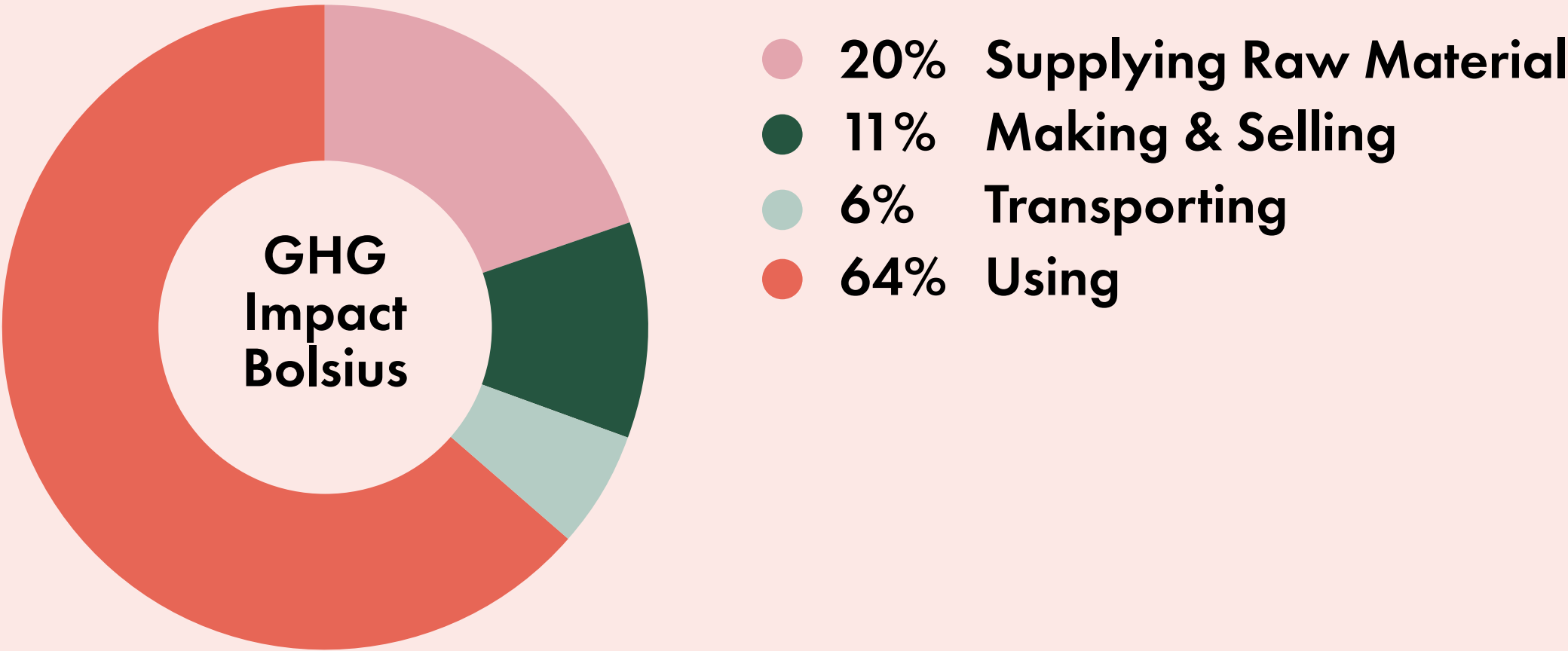


GHG emissions

Scope 1 (own activities), Scope 2 (purchasing energy from third parties) or Scope 3 (an activity by others in the value chain)

Based on modelling of 2021 activity, total emissions of GHG on Scope 1, 2 and 3 upstream and downstream, is estimated to be more than 300 000 tCO2eq. This is equivalent to total emissions of an average city of 30 000 people. Indicatively, GHG emissions over the Life Cycle of candles produced by Bolsius can be divided in four main areas:

1. Supply of raw materials necessary to produce candles;
2. Transformation of raw material and manufacturing of products;
3. Transportation of products;
4. Combustion of wax and wick during utilisation of candles.



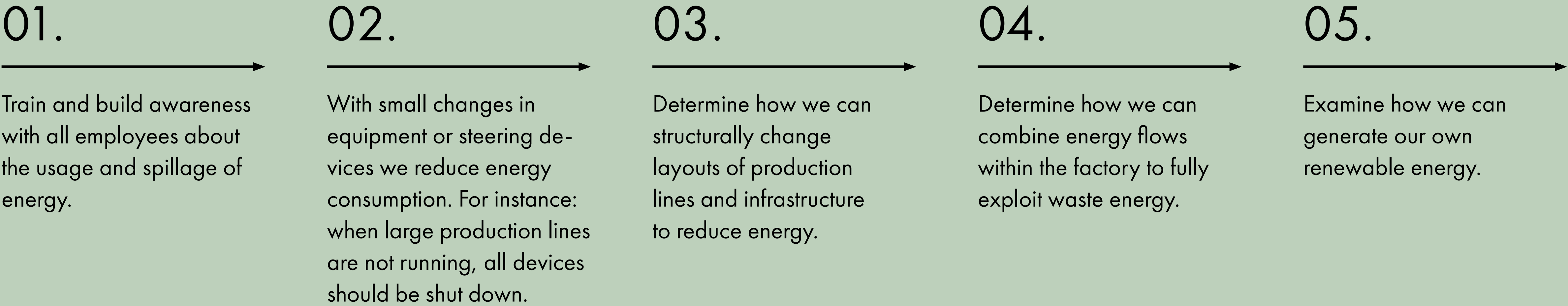
A Deeper Dive

05.



Greening our factory: energy reduction roadmap

We committed to a massive transformation of our existing factory in Poland with the goal to align on the ambitious SDG reduction of doubling the annual rate of energy efficiency by 2030. In order to reach this goal, we follow this five steps roadmap:



Dual Cargo transportation

We are hitting the road in the state of the art trailer that was designed especially for us in collaboration with Van Eck, and results in a 36% reduction of CO₂ emissions. The closed semi-trailer for tank and pallet transport has a capacity to transport max 24 tons of liquid cargo and 33 pallets. By splitting an insulated body into two parts in height, with a tank constructed in the lower part, it can transport max 24 tons of liquid paraffin. The tank section is equipped with a special heating system, so that the liquid cargo can be transported at a constant temperature of 70-80°C, even at an outside temperature of -20°C.

The weight of the vehicle and the insulation of the body played a major role in the design. Normally, double deck trailers are quite heavy, which results in a limitation of the charging capacity. Van Eck has re-used plastic fibres from the aviation industry and other lightweight plastic materials and manufactured those into a lightweight insulated body by means of a wet-on-wet process. The insulation value is of such high quality that the difference between load and outside temperature can be more than 100 degrees. With the implementation of dual cargo transportation there are (mostly) no empty Bolsius trailers on the road.

“The core of this optimisation lies in the corporate owned custom designed trailers. The trailers are equipped with both a square tank for paraffin storage and covered top for the transportation of finished goods. The multiple purpose trailers allow for full load to and from the production facility.”



Maarten Smeets
Supply Chain Manager



District heating in Moerdijk & Wax from Plastic Waste

The Moerdijk terminal uses redundant energy from a neighbouring industrial facility via a system called District Heating. In short, redundant heat from food waste to biofuel processor BEWA is supplied to neighbouring companies Bolsius and DCS. This results in an average annual emission reduction of 149 tons CO₂-equivalent. The unique District Heating system has been

implemented to operate significantly more sustainable. Bolsius uses the heat mainly to keep the paraffin in liquid form. It replaces the need for a heating system with water heated by gas.

Bolsius invested in Fuenix to create circular candles. Fuenix has developed a revolutionary technology to process end-of-use contaminated mixed plastic waste

(which is difficult to recycle). With this technology, out of every kilo of plastic 70% can be transformed into new raw materials with half the CO₂ emissions. Fuenix enabled Bolsius to successfully introduce the first circular candles in the European market in 2020.

Educational campaign about plastic

Studies show that recycling plastic waste saves more energy than burning it along with other household waste. To create awareness on this topic in Poland we teamed up with For an awareness campaign in Poland, we teamed up with Monika Michalska-Szulc who is known as the 'Lady of Waste'. With an eco-talk, educational movies and online campaign she educated her followers about what to do with empty refills and containers. She also explained how important it is to segregate plastic candles in the cemetery. Bolsius was the initiator and ambassador of this initiative to inspire and 'nudge' consumers towards positive behaviour.

Ekologiczne rozmowy Joanny Derdy



Odpady są SEXY!

Gdzie powinien występować pusty karton po mleku? A gdzie para butów? Jakie największe grzechy popełniamy,

Skąd zainteresowanie odpadami? Temat wydaje się mało seksowny... Ale ja uważam, że odpady są takimi... To taki obszar, którego ludzie nie lubią dotykać. Myślę o odpadach jako o czymś, czego chcemy się jak najrybniej pozbyć, nie zastanawiając się, co z tym dalej. I wyrzucamy. Ale są ludzie tacy jak ja, którzy potem coś muszą z tymi odpadami zrobić. I to jest dla mnie fajne, że zajmuję się czymś, co wszyscy już spisał na straty, i co więcej, mogą z tego być jeszcze jakieś pieniądze! Jest to też temat rzeczonej, bo ludzie z nami, do polki będą na świecie ludzie. Tak naprawdę w każdej dziedzinie życia, w każdej gałęzi przemysłu, produkcji, nawet powstają odpady. To nieodłączna część życia.

Razem myślimy o tych odpadach w skali małej, bo mamy już wystarczający kłopot z odpadami w naszym domu. Ostatnio przez tydzień przysglądałam się temu, co wyrzucam. To są sterty? No i jak to wyrzucić? Segregacja śmierci jest z nami już jakiś czas, ale chyba traktujemy ją po macoszemu. Są, wydaje mi się, dwa typy ludzi. Jedni faktycznie traktują śmierć po macoszemu. Ludzie tacy uważają, że skoro pognęzą opłaty za odpady, to wszystko powinno się już dzieć poza nimi. Placy, to wymagam. Wystarczy wrzucić do odpowiedniej, efektywniejsi jak na dzień. Z kolei druga grupa jest na przeciwnym biegunie. Moje nawet za bardzo przejmują się segregacją, oglądają każde opakowanie, szukają w Internecie, gdzie co wyrzucić, czy odpać etykiety, może jeszcze umyć. Jest jeszcze trzeci typ. Jest do tej grupy należysz. Chciałabym segregować właściwie, ale brak mi wiedzy i determinacji. Bo nawet jeśli raz udało i zrobię sobie tabelkę, to zaraz pojawiają mi się kolejne pytania. Niki moje tego nie umieć. Tak, to kolejny problem - wytyczne są ogólnie. Dajmy nam to mamy informacje, co wyrzucić do składowiska i butelki szklane. Ale jest jeszcze cała gama opakowań szklanych po kosmetykach, po lekach, są szklane, niebieskie, szare - o tym się nie mówi. A ceramika idzie do zmieszanych, nie do szkła. I tak samo w każdej kategorii, na przykład przy papierze jest mowa o kartonie czy papierze z drukarki, ale nikt się już nie

A raw material dilemma: sourcing wax

One of the dilemmas we face in the business we are in is a 'raw material dilemma': the sourcing of wax. How to deliver the best quality product and make the most future-proof decisions possible? Luckily, there is a lot of innovation in the sourcing of wax. Unfortunately, choosing the best material is not always black or white.

How it started: The traditional main material in a candle is wax. Typically solid at room temperature, it can come from three main sources: paraffin (a by-product of petroleum refineries producing lubricants), animal or plant-based fats.

What is the dilemma? There is an identified environmental potential benefit associated with maximising sourcing from plant-based fats. It is estimated that over the whole life cycle, natural waxes will be 65% to 90% less emissive compared to paraffin wax and can come from renewable sources, whilst oil reserves are limited. However, this transformation process can require twice as much energy as processing traditional petroleum-based

paraffin to become usable, therefore a candle 'as produced' from natural origins can have a bigger 'cradle-to-gate' footprint than a petroleum-based one. But a candle is meant to be burnt, and during the usage phase, plant-based products combustion releases mostly biogenic carbon that the plant captured during its growth, whilst petroleum-based wax will release fossil CO₂ that was buried in the ground for a million years. This means that the plant 'borrows' the CO₂ that is returned to the atmosphere at the time the candle is lit, while petroleum-based wax brings a net increase of GHG in the atmosphere.

Where we are heading: Whilst natural waxes present a great potential for sustainability benefits, the use of vegetable fats offers a great opportunity to engage with our suppliers and contribute to further reducing our footprint. We take the following aspects into account in our decision-making process:

- Crops used should not be associated with deforestation, or their overall contribution will become negative compared to petroleum-based products.
- There must be consideration of the potential competition with human food.

- Additional innovation is required to make their processing more efficient and improve performance in a number of areas where they can be technically challenged versus their fossil fuels alternatives.
- Natural wax production for the volume of raw material we need would require 400km² of land for the crops Raising biodiversity and competition of usage issues.

As a next step, Bolsius is investing in and undertaking a Multi-criteria Life Cycle Assessment to support strategic sustainable wax sourcing for the future.



The Road Ahead

06.



Improvements, challenges and innovations

Our current footprint is the result of years of improvement, challenges, and innovations, touching upon all different aspects of our GHG impact.



Next steps for the future

There are many opportunities to continue this journey to reduce the impact of Bolsius' activities. Most notable actionable programs that are formalised in our Impact Strategy include:

Strengthening of GHG reporting, with adoption of tools compliant with international standards, such as the GHG Protocol and ISO14064, with co-construction of a CO2 abatement plan and operationalization of GHG emissions reductions;

Definition of a trajectory for the contribution of Bolsius to a Net Zero future, leveraging recognized commitment framework such as SBTi (Science Based Targets initiative) or NZI (Net Zero Initiative);

Identification of emission avoidance in its supply chain upstream and downstream (insets), though a collaborative approach involving suppliers and distributors;

Contribution to increase of carbon sinks (through voluntary compensation and carbon removal programs);

Embedding GHG in design, formulation, and development programs, through the development of a multi-criteria environmental scoring system for projects and innovations (green compass);

Development of awareness programs for employees and customers & users.

THE ROAD AHEAD, A WORD FROM MARCO-PAUL MEINEN, OUR CEO.

As Bolsius moves into the future, we will continue to light the way for current and future generations and create products of superior quality that reconnect people with themselves and their loved ones. This mission is deeply rooted in our family-owned company and the culture we built over the years and has been the foundation of our success in the last 152 years.

Transformational journey

Bolsius is on a transformational journey, both in business and sustainability. We cannot afford to move too slowly in this volatile, uncertain, complex and ambiguous world. In everything we do, we strive to find a balance between what we take from the planet and what we give back. Therefore Bolsius made commitments to align with the Paris agreement; setting emission reductions for 2030. Our team is committed to our impact strategy, is willing to face dilemmas and act responsibly. Making every employee a sustainability champion will fuel our team and put a spotlight on decisions we make as a company. Whether it comes to reducing plastic, investing in renewable energy, focusing on circular and refillable innovations or increasing the percentage of regenerative plant-based materials: it all adds up.



In order to keep track of our progress, we will further align our reporting with the Corporate Sustainability Reporting Directive (CSRD) and use a data-based approach for reporting. This means setting measurable goals to decarbonize our business, eliminate waste, and protect water resources. To make this happen, we will care for and invest in our people by providing a great place to work and structurally support local communities across Europe via voluntary work and investments.

Collaborative leadership

In the years ahead we will continually join forces with our ecosystem of consumers, employees, suppliers, external stakeholders and customers in order to improve our impact. This means we will need to open doors for more collaborative leadership. Sharing knowledge and being transparent about our challenges, will eventually lead to progress. We realise that this is just the start of a road that is not fully paved yet and look forward to sharing our journey with you!

“I want to enable people to experience more than 3 billion magical moments of connection every year. We strive to leave the planet in a better way that we found it by committing the Bolsius Group to the Paris agreement and focusing on our emission reductions.”



Marco-Paul Meinen
CEO

A stylized handwritten signature in black ink, appearing to read 'M.P. Meinen'.



“And as we let our light shine,
we unconsciously give other people
permission to do the same.”

Nelson Mandela, Inaugural speech (1994)

This is the first edition of the Bolsius impact report. Date of publication: March 2023. If you have any questions, please email Stacie Raymond, Head of Sustainability: pmo@bolsius.com.

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since 1870