

2025

Sustainability report



 **100
YEARS**
FROM FIRE TO VISION


VANDERSANDEN

Table of contents

01 Foreword	/ 03
02 Sustainability at Vandersanden	/ 04
03 Sustainability in a nutshell	/ 06
04 Sustainability in the workplace	/ 08
05 Sustainability in the industry	/ 14
06 Sustainability in the community	/ 18
07 Together to zero, sustainability for the environment	/ 22
Product transition	/ 26
Energy efficiency	/ 32
Energy transition	/ 36
Carbon Capture and Storage (CCS)	/ 40
08 And finally	/ 44



Foreword

With every brick, every facade and every street, we bring our vision to life: building something meaningful, for people and the planet.

Last year we celebrated a remarkable milestone: 100 years of Vandersanden. A fantastic opportunity to celebrate our history, but above all, to look ahead to the future.

One hundred years ago, the Vandersanden family embarked on a journey of craftsmanship, innovation and sustainability. With both feet firmly in the clay, yet always looking forward. Where others saw only bricks, Vandersanden envisioned the future.

Under the motto "From Fire to Vision", we connect our rich tradition of craftsmanship with a forward thinking outlook. The fire symbolises our passion and craftsmanship, and the vision represents sustainable evolution and innovation. From that spark, we build extraordinary things together. This is how we pass on the flame, literally and figuratively. From one generation to the next.

We believe in the power of collective well-being. At Vandersanden, we actively commit to people, the environment and society — not through isolated initiatives, but through a thoughtful and cohesive strategy.

Our ambition is clear: we aim to be climate neutral by 2050. That is why we continue to pioneer circular solutions, incorporate carbon neutral production methods, and build sustainable partnerships.

For many years, we have been investing in sustainable (production) processes, products and solutions. Today, a substantial portion of our

production runs on renewable electricity, generated by our own solar panels or wind turbine at our Lanklaar site. In Beek, we have installed innovative drying technology that consumes significantly less energy – a first in Europe. With product innovations such as our thinner facing bricks and pavers, and the groundbreaking CO₂-negative facing brick, Pirrouet®, we are demonstrating that sustainability and quality go hand in hand.

We are making strong progress on circular solutions: our production generates minimal waste, and we are exploring ways to reuse and recover raw materials from residual streams or any waste that is produced. Our commitment to the social and human aspects of sustainability is equally vital: maintaining a safe working environment, fostering employee engagement and cultivating deep roots in our local communities are essential.

As a family-owned company that thinks in terms of generations, Vandersanden must continue to play a meaningful role in shaping the construction industry of tomorrow. We want to contribute to a sector that is more climate friendly, affordable and future proof.

This report details where we stand today in terms of sustainability, the steps we will take in the coming years, and where we need support from others. We are progressing step by step, but always with a necessary urgency.

Johan Deburchgrave
CEO Vandersanden

Sustainability at Vandersanden



Vandersanden is not only one of the largest, but also one of the most sustainable family-owned brick producers in Europe.



At Vandersanden, we do not think in terms of years, but generations. We don't just do business for ourselves; we also want to contribute to solutions for the societal challenges that lie ahead. This means looking beyond purely economic indicators. Our goal is a stable and healthy balance between benefits for society, the environment, our employees and our shareholders.

For our family shareholders, it is essential that Vandersanden is a benchmark in sustainability. Across our eleven production sites in Belgium, the Netherlands and Germany, we produce facing bricks, pavers and brick slips. We also provide our customers with innovative facade and street solutions. Craftsmanship, co-creation, innovation and sustainability are the cornerstones of how we work. Our ambitions are high: One of our key sustainability goals is to be completely Carbon-neutral by 2050.

Together to Zero

To achieve this goal, we make targeted investments in order to make our processes, production methods and factories more sustainable. But that is not all. Through the development of new, innovative products, we contribute to reducing the use of raw materials, energy consumption and CO₂ emissions, while maximising the use of renewable resources. Whenever possible, we do this together with our partners. After all, our motto is 'Together we build greatness.'

With the actions we take today, we are building the future. We have committed ourselves to becoming completely CO₂-neutral by 2050. Under the name Together to Zero, we promise to operate and produce entirely without CO₂ emissions by 2050.





As an industry, as a company and as a society, we must join forces to bring innovative ideas and bold investments to fruition. It is a challenge we undertake collectively because we believe that the best outcomes are achieved together.

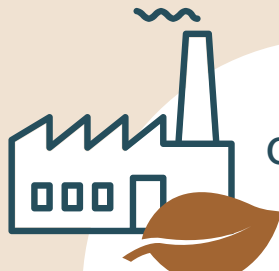
Together to Zero is a direct extension of our motto, *Together we build greatness*. We are firmly convinced that the power of collaboration will lead to greater well-being for people, organisations and the environment.



100
years of
Vandersanden



**“Best
Managed
Company”
Platinum label**
(since 2024)



Own
renewable
energy
+246 %
compared to 2020



Participation in
the European research project
Carbon4Minerals
focused on **CO₂ capture**
and the development of
low-carbon building products
(2023 to mid-2027)

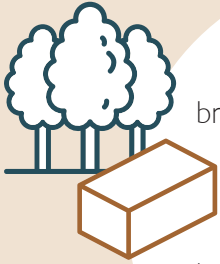


Pirrouet®
CO₂ uptake increased
by **244%** compared
to 2024
(start of production)

wins the **German
Sustainability Award**
for products



S-line
facade and
paving stones
for dematerialisation
and production
optimisation.



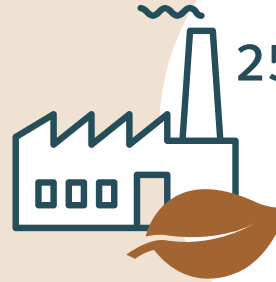
Within our facing brick portfolio, we are taking concrete steps towards **lower-carbon formulations**, the first adapted compositions of which have now been successfully introduced into production.

Unique steam-drying technology at the Beek plant

35%
CO₂ reduction

Total energy consumption at Vandersanden

25% reduction compared to 2020



Total CO₂ emissions (scope 1 and 2):

23%
reduction compared to 2020



International growth for

Offsite Solutions, including
RoboBrick®
(NL, BE and UK)

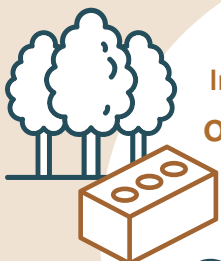
Charities:
investment of

€ **500** k/year



Inclusivity

19 nationalities
across 5 different countries



Introduction
of climate-adaptive
solutions
for paving

Greenflow®
Drainflow®

Launch of a programme to strengthen a sustainable safety culture across the entire organisation led by



Samurai@Work (2025)

GPTW certificate

for Belgium, the Netherlands, Germany and the UK



74% Trust Index



Safety and coaching in the workplace

Feeling good in your job, enjoying your work, and fostering mutual trust and camaraderie greatly contribute to employees' personal sense of happiness. That is why we strive to provide everyone with an inspiring workplace that is optimised for personal development and physical comfort. A workplace that is safe, healthy and ergonomically sound, and a culture where everyone is given the opportunity to maximise their skills and strengths.

VDS-M, our vision of leadership and ownership

“Together we build greatness” is a slogan at Vandersanden that our employees live up to every day. It represents the way our employees treat each other in the workplace, how managers treat their employees and vice versa.

Vandersanden has transformed this concept into a unique vision of leadership and ownership: VDS-M. It is underpinned by a complete set of competencies that shape family culture and behaviour every day. Training and coaching are also provided to work with VDS-M effectively and efficiently.

In VDS-M, a distinction is made between Leadership (VDS) and Management (M). Management is about the skills required to 'manage' a factory, a process, a project or yourself. Leadership focuses on people and is not limited to those in formal leadership roles.

At Vandersanden, we believe that each of our 800+ employees play a role in shaping the culture.

Through everyday interactions, we influence each other and lead by example - with respect, integrity and care. The competencies that underpin VDS values are summarised under the heading of Ownership.

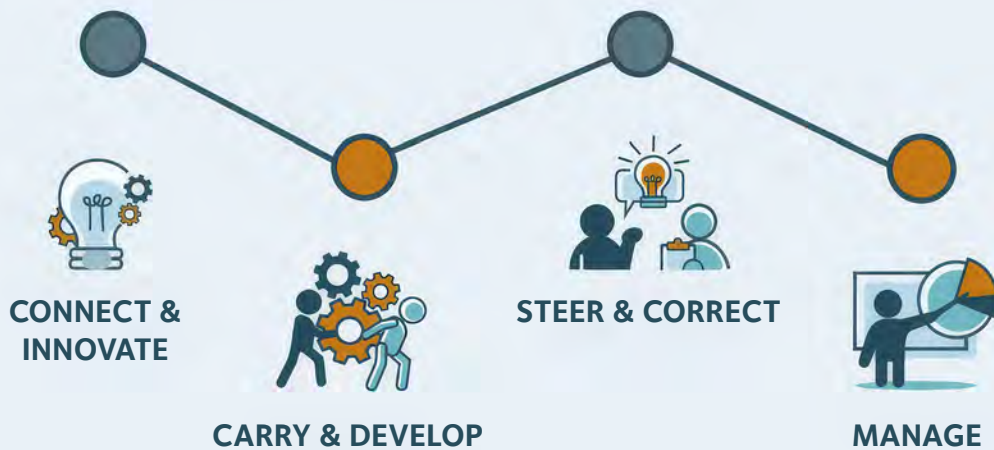
VDS stands for:

- Connect and innovate
- Carry and develop
- Steer and correct

In 2021, two full-time trainers started working at Vandersanden to translate the vision of VDS-M Leadership and Ownership directly into the workplace, with an accessible and practical training model.

VDS-M

LEADERSHIP JOURNEY



- Approximately 50% of employees have completed VDS-M training
- An average of 50 training hours per person in 2025

Rather than extensive theory, the emphasis is on applying what you learn and growing through experience. Over a three-month cycle, groups of six to eight employees participate in several short sessions, varying from one to two and a half hours, covering core competencies relevant to their role. Interim one-to-one coaching sessions are integral to the training programme, where participants reflect on successes, identify areas for growth and explore how to apply their learning in practice.

We can proudly report that by the end of 2025, the majority of employees across all our countries (Belgium, the Netherlands, Germany, France and the UK) will have completed the VDS-M training cycle. After training, the coach remains available

for support and as a sounding board for further growth.

Employee development plays a crucial role within the competency system for managers and employees, particularly in the 'Support & Develop' component. Both trainers have specialised in the 'Great Place to Work' model and are recognised 'LIFO' licence holders. Their knowledge of the 'Life Orientation' behavioural method allows them to connect the preferred behaviour of their internal customers to the VDS-M competency system. The coaches also analyse the improvement potential of the annual staff survey so they can coach managers and employees in a more focused and impactful way.

Language coaching for non-native speaking colleagues

At Vandersanden, we place great importance on integration, with clear communication being paramount. This applies both during informal moments, such as breaks, and in understanding important safety instructions. That is why, in 2025, we launched a language coaching programme in Lanklaar and Maasmechelen for colleagues who are not yet fully proficient in Dutch.

This supports them to perform better in their current roles and improve their chances of progressing to positions with greater responsibility. Fluency in Dutch is essential to achieving better integration into society more broadly.

Our non-native speaking colleagues possess the right skills and embody the Vandersanden mindset every day. We can help build their confidence through coaching when Dutch is not their native

language and they have had limited exposure to it. This coaching provides them with the language foundation to overcome communication challenges and supports continued development.

Thanks to its efforts in language training, Vandersanden once again **achieved the 'Inclusive Entrepreneurship' reference certificate in 2025 and 2026.**



Safety culture in motion, Together towards zero accidents

Safety is a top priority at Vandersanden. Our goal is clear: everyone must be able to return home safely and healthily every day. We've made meaningful progress in recent years, but the numbers suggest we are not there yet. In 2023, we recorded 26 accidents resulting in absence from work; this decreased to 20 in 2024. However, the number of lost workdays doubled, indicating that the severity of accidents increased. Towards the end of 2024 and into 2025, we are seeing an upward trend in the number of accidents again, underscoring the need for sustained focus on safety and behaviour in the workplace.

At the same time, we are seeing a **significant positive development**: the number of reported hazardous situations and near misses is increasing. This indicates a growing willingness to report and a heightened awareness of risks. By reporting risks and unsafe situations more frequently before an accident occurs, we are taking concrete steps towards a stronger safety culture and consistent prevention in the workplace.

Analysis of incidents shows that many accidents can be traced back to human behaviour: well-intentioned actions, haste or forgetting safety rules. Common responses include, "I just wanted to help" or "I had to do something quickly." This is why we have been fully committed to behavioural change and a strengthened safety culture since 2024. With the support of our external partner, **Samurai at Work**, we are now working on a structural and sustainable approach.

FIGURES 2025

- 23% more reports of hazardous situations compared to 2024.
- No fatal/very serious accidents.
- 297 toolbox sessions in 2025, attended by a total of 4,578 people (multiple sessions per person).
- A total of 88 workplace inspections, 16% of which were attended by senior management.



Samurai at Work is guiding us through a large-scale change process that operates both top-down and bottom-up. This means that management, supervisors and employees on the shop floor are all involved. The project began in 2025 with kick-offs and baseline measurements across the entire Vandersanden-organisation. These assessments cover culture, communication, existing processes and how employees engage with safety. The insights gained form the foundation for the safety compass, which we develop together with management and plant managers. This year, site-specific action plans will be gradually translated into concrete actions and behavioural changes on the shop floor, with support from Samurai at Work. Safety will be integrated into existing processes and increasingly become part of daily routines and behaviours.

Vandersanden's safety approach focuses on three pillars: safe machinery, clear procedures and safe

behaviour. We aim to move away from a purely reactive approach, and we encourage employees to report unsafe situations and near-misses before any incident occurs. This is already paying off, as the number of reports of hazardous situations increased by 23% in 2025 compared with 2024. This is a positive development, as it shows that Health, Safety & Environment (HSE) is becoming increasingly embedded within the company.

We recognise that change takes time. With 11 locations and diverse backgrounds, building a shared safety standard is a step-by-step journey. That is why we are working to integrate HSE across all departments, not just in operations. Collective Well-being and our VDS-M vision play a crucial role in this through leadership and ownership. This includes encouraging colleagues to speak up and hold each other accountable when unsafe behaviour is observed.

Safety is not solely the responsibility of the HSE department; it is a shared responsibility. We aim to improve the numbers and raise awareness. Together, we are building a culture where safety is second nature, bringing our goal of zero accidents one step closer every day.

Sustainability in the industry

Vandersanden is a proactive and reliable organiser for partners and projects that jointly promote and initiate corporate social responsibility (CSR). We strive for sustainable relationships with customers, colleagues and suppliers, as well as with those indirectly involved. Throughout the entire chain – from raw material extraction to the installation and maintenance of final products – we continually seek constructive collaborations. Because together we build greatness.



From old clay pits to riverine nature in Bijlandse Waard

Just behind our paving brick factory in Tolkamer lies the Bijlandse Waard: a landscape shaped by our former clay extraction activities, featuring shallow pools surrounded by willow woodlands and maize fields.

The area is owned by Vandersanden and has served for many years as a source of the clay we used in our brick production. Today, these former clay pits are the starting point for a unique project that illustrates how industry, nature and landscape can strengthen one another.

Together with Van Nieuwpoort Area Development, we are giving the old clay pits a new future. By removing obstacles that restrict the flow of the River Rhine, the project contributes directly to **flood protection**. Van Nieuwpoort carries out the sand extraction, with the sand transported away via conveyor belts. Vandersanden remains

the owner of the area and the steward of the transition.

In the near future, the Rhine will be able to flow freely through the Bijlandse Waard during periods of high water. While beavers and pond bats find a new habitat in the newly developed floodplain forest, we will continue to work towards a future proof and sustainable supply of raw materials.

By resourcefully combining sand extraction with landscape design and flood protection, we are creating an area that delivers ecological quality and social value.



Vandersanden participates in the sustainability programme “Brick Valley”

In line with our sustainable vision and strategy, Vandersanden has committed to making an even greater contribution to climate neutrality in one of the Netherlands’ production regions. Through participation in Brick Valley, a sustainability programme involving four brick manufacturers and KNB Bouwkeramiek, we can make an additional impact in greening the Gelderland regions of Gelders Eiland and De Liemers.

Brick Valley is a programme by four brick manufacturers aimed at the region east of Arnhem, known as Gelders Eiland and De Liemers. Vandersanden operates two brick factories in this area, in Spijk and Tolkamer, both located directly on the Rhine River. The objective of Brick Valley is to reduce greenhouse gas emissions by at least 50% by 2030. The programme should ultimately lead to climate-neutral brick factories in both regions of Gelderland.

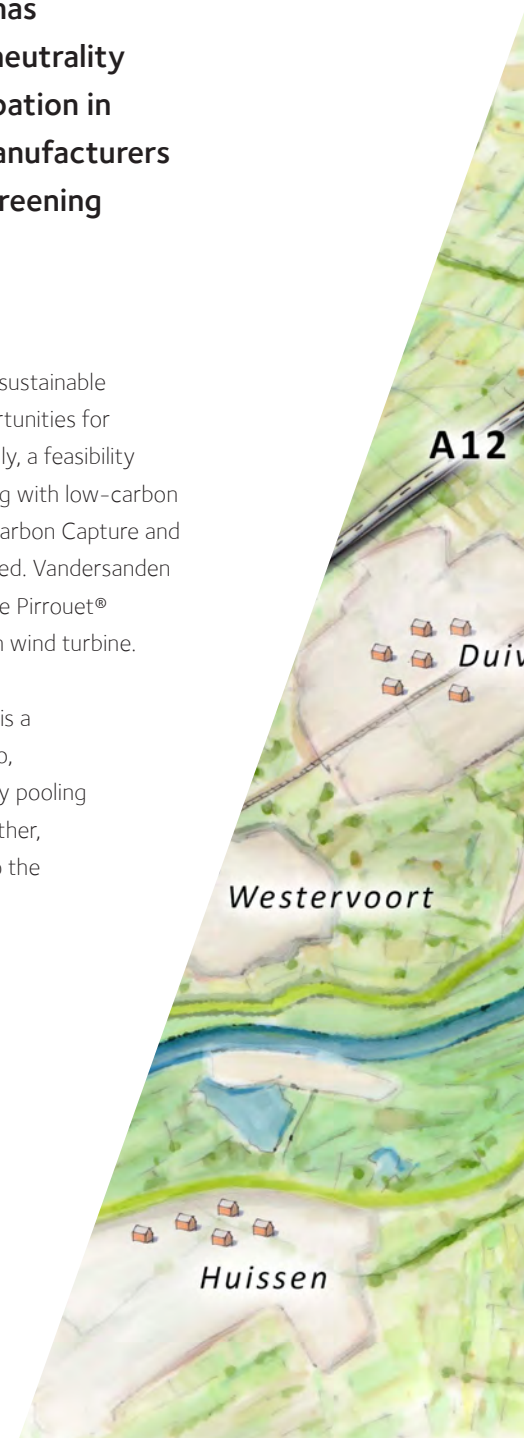
This flagship project is supported by the industry association Koninklijke Nederlandse Bouwkeramiek and is recognised by the province of Gelderland as a contribution to the climate challenge.

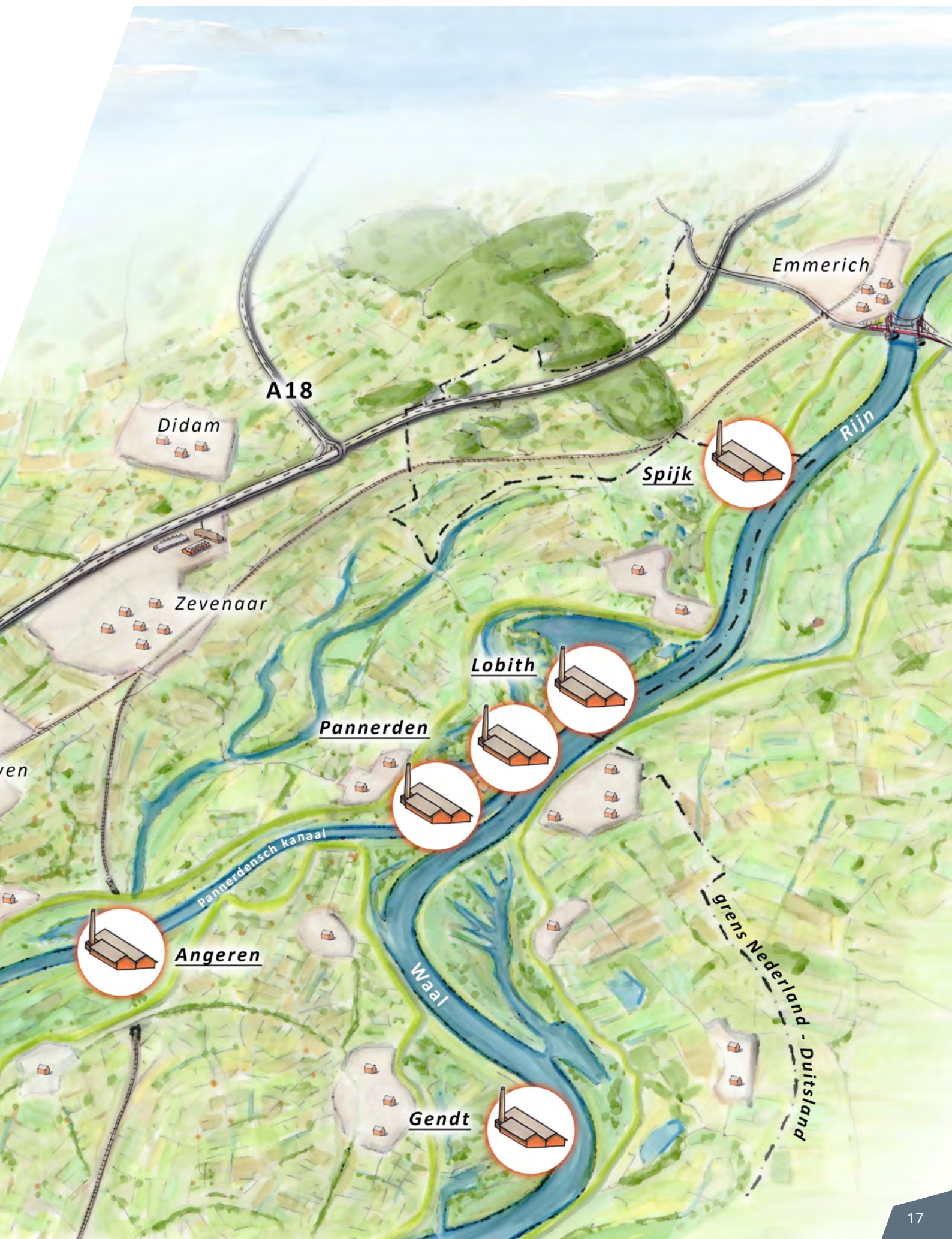
Different sustainable technology routes

Within Brick Valley, we are collaborating with three fellow manufacturers to explore various sustainable technology routes that contribute to a shared goal of a climate-neutral energy supply.

This includes research into new sustainable electricity generation and opportunities for hydrogen production. Additionally, a feasibility study has been initiated for firing with low-carbon hydrogen, and possibilities for Carbon Capture and Storage/Usage are being explored. Vandersanden is already well advanced with the Pirrouet® CO₂-negative bricks and its own wind turbine.

Our participation in Brick Valley is a powerful reflection of our motto, ‘Together we build greatness.’ By pooling our strengths and working together, we can effectively contribute to the higher, urgent goal of creating a more sustainable environment. We play a prominent role as an employer with two plants in the region, and we have the opportunity to help build a healthier future for the community.







Sustainability in the community

Vandersanden contributes to people's quality of life by running an honest business, driven by our core values, and demonstrating our commitment through numerous social initiatives. We support charities, and employees are given the opportunity to contribute as community builders to making society a better place.

In 2025, we supported seven inspiring organisations: Les ré cups en'Or (FR), Living On (UK), Het Verwondercentrum (BE), Stichting Energy4Finn (NL), Kinderhospice Papenburg (DE), Het Braamhuis (NL) and Levensloop (BE). Each of them expressed heartfelt gratitude for the funds raised.

For 2026, the working group 'Collective Well-being in the Community' received a large number of proposals from colleagues. After careful consideration, the group once again selected seven charities, focusing primarily on the employees' personal involvement.

Het Teutenhuis, Eksel (BE)

Het Teutenhuis is a parent led initiative that supports young people with mild intellectual disabilities by providing them with a safe and structured environment. In its initial phase, the organisation focuses on meaningful daytime activities, such as gardening, animal care, household tasks and guided outings, all under professional supervision. In the longer term, Het Teutenhuis aims to develop small scale residential accommodation, with individual rooms and shared living spaces, allowing young people to live in a homely and stable setting. The initiative was born out of a shortage of appropriate care facilities and the desire from parents to offer their children a sustainable, high quality future.

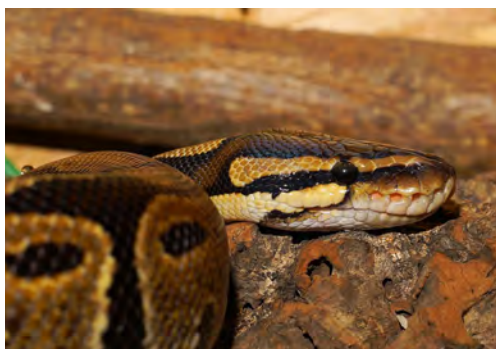


Zorggroep Arum, Dilsen-Stokkem (BE)

Zorggroep Arum is a care organisation that supports young people and adults with an intellectual disability, a physical disability or non acquired brain injury. Across several campuses in the Maasland region, they provide residential support, daytime activities and individual guidance, always tailored to the specific needs of their clients.

The requested funding will be used for tangible improvement projects within the organisation, including renovation works in the Veer residential group at Campus Meander in Stokkem, refurbishment works at the Dierenpark workshop in Stokkem, and greening initiatives at Campus Mané in Opgrimbie. These investments contribute to a more pleasant, calming and future oriented living environment for the clients.





Carnivora Foundation, Beringe (NL)

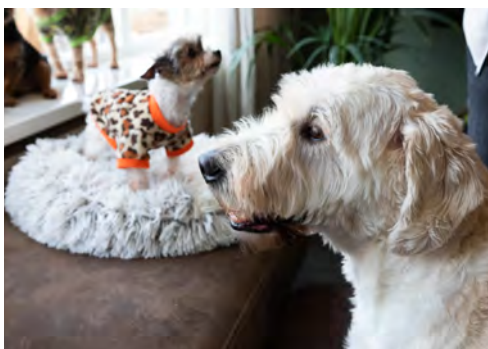
The Carnivora Foundation is a rescue centre for exotic animals, primarily reptiles, amphibians and arthropods. The foundation takes in animals that can no longer be cared for by their owners or have been handed over because the care required was underestimated. Within the centre, these animals are provided with a safe, suitable living environment, along with the care they need.

The organisation offers educational activities, such as animal presentations, guest lectures and workshops, to introduce children and adults to exotic animals in a safe and informative way. The Carnivora Foundation is run entirely by volunteers and relies on donations for food, medical care and the maintenance of animal enclosures.



Moon's Yorkshire Terriers Foundation, Zevenaar (NL)

Moon's Yorkshire Terriers Foundation (MYTS) provides shelter for Yorkshire Terriers and other small dog breeds that no longer have a home or require medical care. The foundation provides rehabilitation and rehoming where possible. For dogs that cannot be rehomed due to illness or old age, MYTS offers permanent shelter and specialised care, allowing them to spend their later years in safe and comfortable conditions. The foundation is run entirely by volunteers and covers all medical expenses, food and daily



care through donations. Due to the steep rise in veterinary costs, additional financial support is essential to ensure that these dogs can continue to receive the care they need.



Elsie's Story, Southport (UK)

Elsie's Story was founded in memory of Elsie, a young girl who tragically lost her life last year in a knife attack during a dance class in Southport. Her parents have turned their loss into an initiative that supports children and families facing difficult circumstances.

The organisation aims to offer joy, support and hope by providing financial assistance to families and enabling children to experience special, heart-warming moments. In this way, Elsie's Story helps them create precious memories at times when life is hard and time feels precious. In this way, Elsie's name lives on through positive actions for others.





Les Soldiers du Sourire, Lille (FR)

This association provides first aid and essential support to people living in unstable housing situations or on the streets. During their patrols, volunteers offer basic provisions such as food, hygiene products, clothing, moments of relaxation, and support related to sleeping arrangements. The association also fosters social connections through accessible dialogue.

It promotes recognition, understanding and respect, helping to strengthen the self esteem of the people it meets. Through its activities and communication, the association seeks to improve public perceptions of homelessness and raise awareness of the everyday realities faced by this vulnerable group.



Schwicheldt Miteinander e.V., Schwicheldt (DE)

This non profit association is committed to strengthening community life in the village of Schwicheldt (Peine) through projects focused on wellbeing, culture, nature and sustainable infrastructure. Volunteers support both younger and older residents with neighbourhood care, assistance in daily life, and guidance on employment and job applications.

They organise activities that connect the village community, such as lectures, local events and a digital village app. The association also promotes awareness of nature and the environment through family oriented activities, including a nature experience day (the Apple Festival), and projects such as the installation of a stork's nest. The association actively contributes to sustainable energy and mobility solutions, including district heating initiatives and rural mobility projects.

Vandersanden runs 100 km to fight cancer

In 2026, Vandersanden once again took a significant sporting step in the fight against cancer. Four teams took part in the 'Kom op tegen Kanker' 100km run at the De Schorre provincial recreation park in Boom (BE). Together, our colleagues tackled the 100-kilometre distance, driven by strong team spirit and a shared commitment to supporting cancer research.

Thanks to their personal dedication, combined with the generous support of sponsors, a total of €11,875 was raised. This amount was largely raised by the Vandersanden team, which underlines the strong support and commitment within our organisation. Together with more than 2,000 other teams, Vandersanden contributed to a **record sum of €3,396,250** for Kom op tegen Kanker.

We will continue this commitment in **2027. Seven teams** have already registered, and preparations are in full swing. With this growing number of participants, we aim to raise a substantial sum once again and continue to make a difference for the community.



Together to Zero, sustainability for the environment



*We want to achieve zero tonnes of CO₂ by 2050.
Why? We want to combat climate change and reduce
its impact on current and future generations.*



Sustainability and social responsibility were already strong motivators for Vandersanden's founder, Jaak Vandersanden. For decades, employees and family members organically passed on his values to new colleagues and future generations. This is reflected in innovative production methods and the sustainability of our production sites and products.



Since 2018, what began as a deeply rooted belief has been anchored in our mission and vision under the banner of Collective Well-Being. Within this broad ambition, the climate challenge is taking on an increasingly central role. The move towards zero emissions, Together to Zero, is a logical and necessary deepening of our commitment to collective well-being.

Together to Zero brings all our sustainability efforts together into one clear, measurable objective. Those who work at Vandersanden, and particularly those who work in our factories, can clearly witness our ongoing sustainability efforts in our products and processes. From clay to brick, we are committed to making our efforts go further, introducing diverse initiatives designed to support our people, environment and surroundings.

From eight focus areas to four strategic pillars

In 2022, we launched Together to Zero, our promise to operate and produce CO₂-free by 2050. At the time, Together to Zero was

structured around eight focus areas:

1. Dematerialisation
2. Water management
3. Low energy consumption at production sites
4. Smart automation
5. Fossil-free mobility
6. Circular materials & applications
7. Renewable energy
8. Low CO₂ and CO₂-negative products

Within those eight focus areas, we have already achieved significant results.

We use energy-efficient kilns and reuse residual heat from the firing process to dry bricks. Our sites are equipped with more than 41,010 solar panels and we operate our own wind turbine. We also launched Pirrouet®: the revolutionary CO₂ negative facing brick that we developed in house.

But it doesn't stop there. Our entire fleet and rolling stock is being fully electrified, and all our packaging now contains at least 30% recycled material. Collaboration plays a key role in all of

this. We work with government bodies on climate adaptive solutions, and for the dematerialisation of bricks, we combine forces with peers and sectoral federations. In the Netherlands, we are working with other brick manufacturers to roll out a system of reusable plastic pallets. We want to continue progressing; Together to Zero is a movement we are committed to championing and a promise we are determined to deliver. After a successful launch, we are now taking the next step in expanding and strengthening our strategy. The previous eight focus areas are being regrouped into four strategic pillars:

- **Product transition:** We will facilitate the transition from 'traditional' ceramic bricks to more future-oriented and sustainable products and solutions, including the raw materials we use. This encompasses lighter products such as our brick slips and narrow bricks, alongside industrial solutions designed to accelerate construction and promote environmentally responsible practices.
- **Energy efficiency:** We will optimise and electrify our firing and drying processes, including the application of heat pump technology powered by green electricity.
- **Energy transition:** We will facilitate the

transition from fossil fuels to green electricity and green molecules.

- **Carbon Capture & Storage (CCS):** We will capture CO₂ from our own plants and store it. In Lanklaar we are testing the filtration of CO₂ from the flue gases of our brick factory in collaboration with Carbon4minerals.



CARBON4MINERALS



**Funded by
the European Union**

Several factors contribute to climate change. Europe aims to be a pioneer in reducing CO₂ emissions. The goal is to limit the temperature increase to below 1.5 degrees Celsius compared to pre-industrial levels. While this may seem like a challenging target, it is crucial that we take this alarm threshold seriously in order to adequately mitigate the effects of global warming and achieve climate neutrality by 2050.



How will this affect Vandersanden in concrete terms?

Our primary focus is on optimisation: we will reduce our energy demand of the production process and the product.

The remaining energy demand will be met by phasing out the use of fossil fuels and maximising the use of renewable energy and green molecules. We also aim to capture the CO₂ that is still emitted and use it as a raw material for innovative and sustainable products, as demonstrated by Pirrouet®: our CO₂-negative facing brick.

In the short term

- Dematerialisation: thinner pavers and facing bricks, will have the greatest immediate impact. The technical adjustments and investments required are limited, but we remain dependent on market adoption.
- Through Energy Action Teams, we are working to optimise existing processes at our sites as much as possible. This means maximising the reuse of residual heat from the kilns and minimising the heat needed for drying the bricks.

- Next, we aim to electrify the drying chambers (using heat pump technology).
- We will also continue to invest in renewable energy (solar and wind power).

In the medium and long term

- The further roll-out of Pirrouet® and its sustainable processing
- Extensive electrification depending on application and available infrastructure
- Exploring and pioneering the use of green molecules
- CO₂ capture (storage and utilisation)

No one knows what the future holds, which is why it is important to keep our options open, and make concrete decisions based on technological breakthroughs and developments in hydrogen.

In our roadmap towards Together to Zero, we are currently in a transformative phase, actively building a sustainable and future-oriented world through new initiatives.

Sustainable transport: together with logistics partner Henken Transport B.V., this electric truck marks our next step in the sustainable transport of our bricks. This is how we make Together to Zero increasingly tangible on the road – driving towards emissions-free logistics.



Product transition

“

In a circular economy, more efficient use of raw materials and using as many renewable materials as possible are key pillars.

”

Our products provide solutions to climate challenges and meet the specific needs of the construction sector, including lighter products such as narrow bricks (S-line®) and brick slips made with fewer raw materials and less energy. Our industrial solutions accelerate and create a more environmentally friendly building process, including prefab solutions, parametric masonry and automation. We also have climate-adaptive paving solutions that help manage rainwater, such as Drainflow® and Greenflow®, our green paving solution. Circular alternatives such as Pirrouet®, our CO₂-negative facing bricks, are another example of solutions we provide.

S-line®, dematerialisation of both facing bricks and pavers

What we build today lays the foundation for a sustainable future. By 2050, we aim to be CO₂-neutral. A key component in achieving this is by doing more with fewer raw materials and energy. One of the ways we can accomplish this is through dematerialisation: the art of less-is-more.

More efficient use of raw materials and the use of as many renewable materials as possible are key pillars of a circular economy. At Vandersanden, these cornerstones are taking concrete shape in our S-line® bricks, available as narrow facing bricks and pavers made from river clay, a renewable raw material. These S-line® bricks create more possibilities with less material.



29% less raw materials and 34% less energy in the production of narrow facing bricks

For the narrow bricks, the standard facing brick width is reduced from approximately 10 cm to 7 to 7.5 cm. Vandersanden has been producing 2 cm brick slips for years, but many still prefer the traditional method of laying or bonding facing bricks.

The narrower facing bricks are designed to meet demand and contribute to sustainability and circular goals. This innovation maintains the renowned quality and aesthetic standards characteristic of Vandersanden's ceramic facing bricks.

Using narrow facing bricks also creates more living and/or working space, plus additional room for insulation. Thanks to dematerialisation, approximately 34% less energy and raw materials are required to produce narrow facing bricks, resulting in lower CO₂ emissions. This also translates into more sustainable transport, ergonomic benefits during handling on construction sites, and a lighter overall structure.

Thinner pavers help municipalities and individuals move towards a circular economy by 2050

Municipalities and other authorities aim to achieve a fully circular economy by 2050. Circularity is also becoming increasingly important to private

individuals. The more efficient use of raw materials and energy in thinner pavers means Vandersanden directly contributes to the realisation of the circular economy. The brick manufacturer uses local river clay, a renewable raw material, which is extracted from the floodplains along the river, and means new nature and biodiversity are created.

Vandersanden is the first brick manufacturer to hold a **BRL 7010 certification** for pavers. This certification confirms that the pavers meet strict requirements in terms of **renewable content**, environmental performance and product quality. Renewable content is defined as material derived from a source that continuously replenishes itself, including the river clay used by Vandersanden.

The degree of dematerialisation in pavers varies by use; for roads, 7 cm high bricks can replace the standard 8 cm, while 6 cm bricks can be chosen for squares, footpaths or garden paths.

The thinner pavers are also circular. In accordance with the cPCR of TBE – the European ceramic industry – the technical lifespan of paving bricks is 150 years. Research has shown that 95% of paving bricks can be reused at the end of their lifespan for a new application.



RoboBrick® can make homes much more affordable

The European construction sector faces tighter production capacity regarding quantity and quality, partly due to a growing shortage of labour. This challenge comes at a time when economic growth over recent years has driven an increased demand for housing.

Not only is demand rising, but the number of requirements for new construction products is also continuously rising. Manufacturers face increasingly stringent regulations concerning product quality, environmental impact and safety.

The renovation market plays a considerable role, and to meet Europe's long-term climate-neutral renovation strategy for 2050, further substantial efforts are required. The European Commission aims to renovate 35 million poorly insulated homes and offices by 2030, with a further 185 million homes targeted by 2050. This is a colossal challenge but also a significant opportunity for the construction sector.

The solution to these challenges will partly lie in the benefits of offsite construction. Reduced transportation, improved quality, automated assembly control, safer working conditions and faster construction are all advantages of offsite construction.

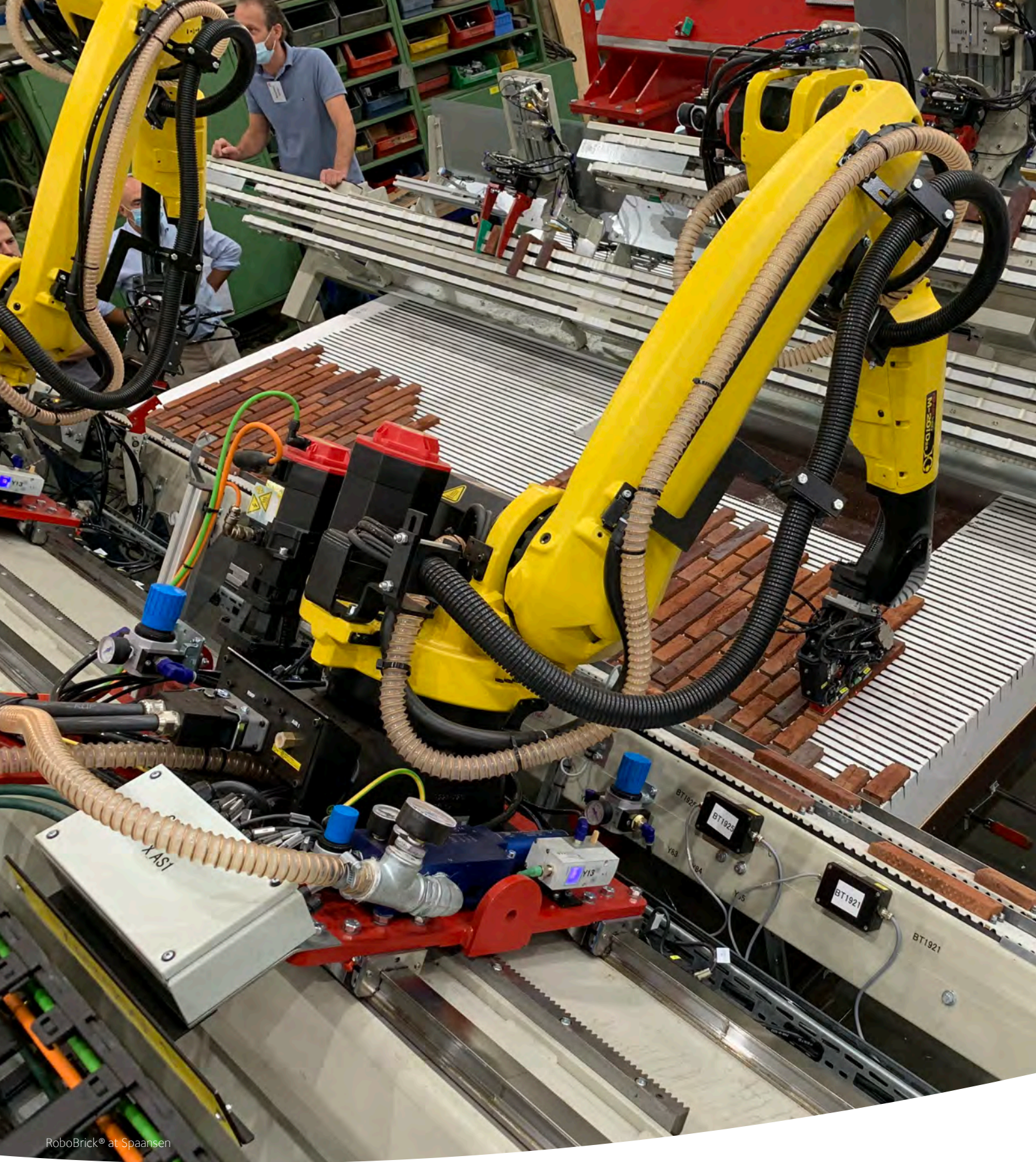
Offsite Construction is already used in one out of every three construction projects in Europe today. Currently, offsite construction is still almost as costly as traditional building methods, but with further robotisation, digitalisation and complete synchronisation of the entire construction process, prefabrication can achieve savings of at least 15% compared to conventional building.

The construction sector is expected to experience significant disruption due to prefabrication, industrialisation and robotisation.

That is where RoboBrick® comes into play: using robots and automatic feeding systems, our custom-made total solution bonds brick slips onto prefabricated walls. Thanks to this automated method, we can bond brick slips up to 15 times faster and save up to 60% in raw materials and energy.

RoboBrick® integrates with existing or new production lines and works on various substrates such as timber frame, steel construction, concrete or insulation materials. The system can bond as many as 2,000 brick slips per hour and is fully automated.

RoboBrick® is an *integrated value system* encompassing our products, specialised design software, quality assurance and expertise. It includes loose, precisely measured brick slips packaged for smooth automated handling by the strip robot, and a high-performance two-component epoxy adhesive specifically developed for industrial environments. In addition, our BrickDesigner software draws every adhesive bead and brick slip in minute detail on the wall, controlling the strip robot while accounting for windows, doors, walls, tolerances and the requested pattern. Through a tracing and monitoring system, all critical production data



RoboBrick® at Spaansen

is measured, and every offsite fabricated element is fitted with a built-in RFID tag that allows the production of the panel to be tracked all the way through to construction and beyond.

This allows us to link all panels to the critical production data, including the warranty certificate.

With this total solution, Vandersanden offers customers an efficient production technique with shorter lead times and guaranteed quality. This is because assembly does not take place on site, but in a production facility equipped with customised infrastructure, automation and logistics.





Climate adaptation with water-permeable paving

Smart and sustainable solutions are needed to combat climate change, as increased heat stress, more frequent heavy rainfall, or prolonged drought become more frequent. Municipalities face a huge challenge in creating and sustaining green spaces, improved water retention, sustainability, noise reduction and more. Drainflow® and Greenflow®, are solutions that Vandersanden has designed to contribute to water-related issues.

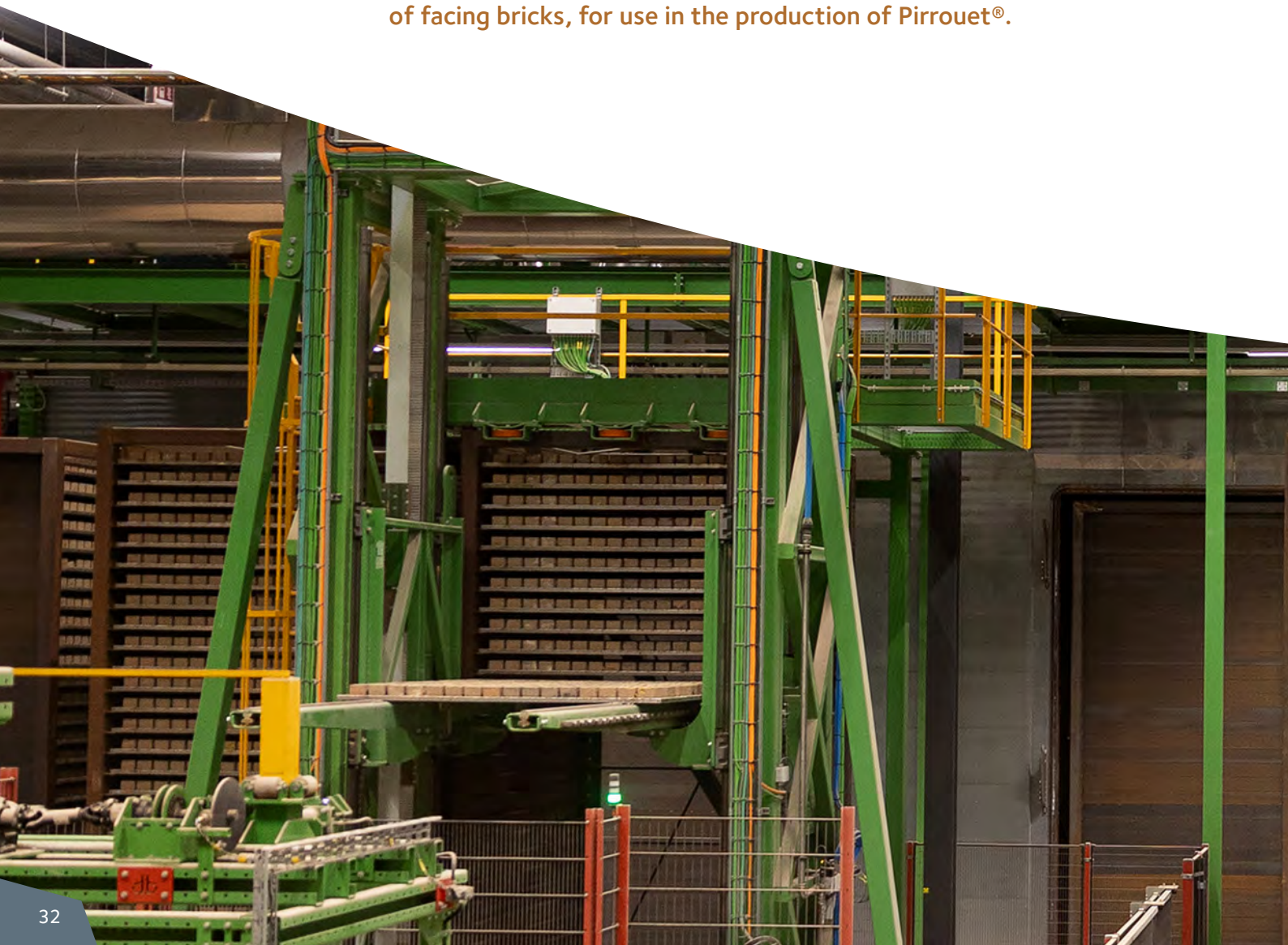
Drainflow®, Vandersanden's water-permeable pavers, is a type of infiltrating surfacing developed by the manufacturer, available in more than ten colours. With Drainflow® water-permeable baked paving, rainwater infiltrates directly into the soil during extreme downpours. This not only prevents flooded streets and other water-related issues, but also helps maintain groundwater

levels, which is crucial in times of increasing drought.

Greenflow® green paving makes it easy to transform dull grey car parks into green and visually appealing spaces. De-concreting creates more space for greenery and water infiltration into the soil, and by locally retaining water, Greenflow® can also contribute to a cooling effect during hot days.

Energy efficiency

We are reducing our energy consumption and CO₂ emissions by optimising our firing and drying processes. In Tolkamer, we have already replaced three older kilns with one modern tunnel kiln, which consumes 25% less energy and consequently generates significantly lower CO₂ emissions. We reuse the residual heat from all our kilns to dry our bricks. We are also making significant progress at our refurbished factory in Beek, where innovative steam-drying technology is delivering a substantial additional reduction in CO₂ emissions. We also have launched a pilot project in Lanklaar to explore how we can recover residual heat from the flue gases produced during the manufacturing of facing bricks, for use in the production of Pirrouet®.



Unique steam-drying technology in Beek

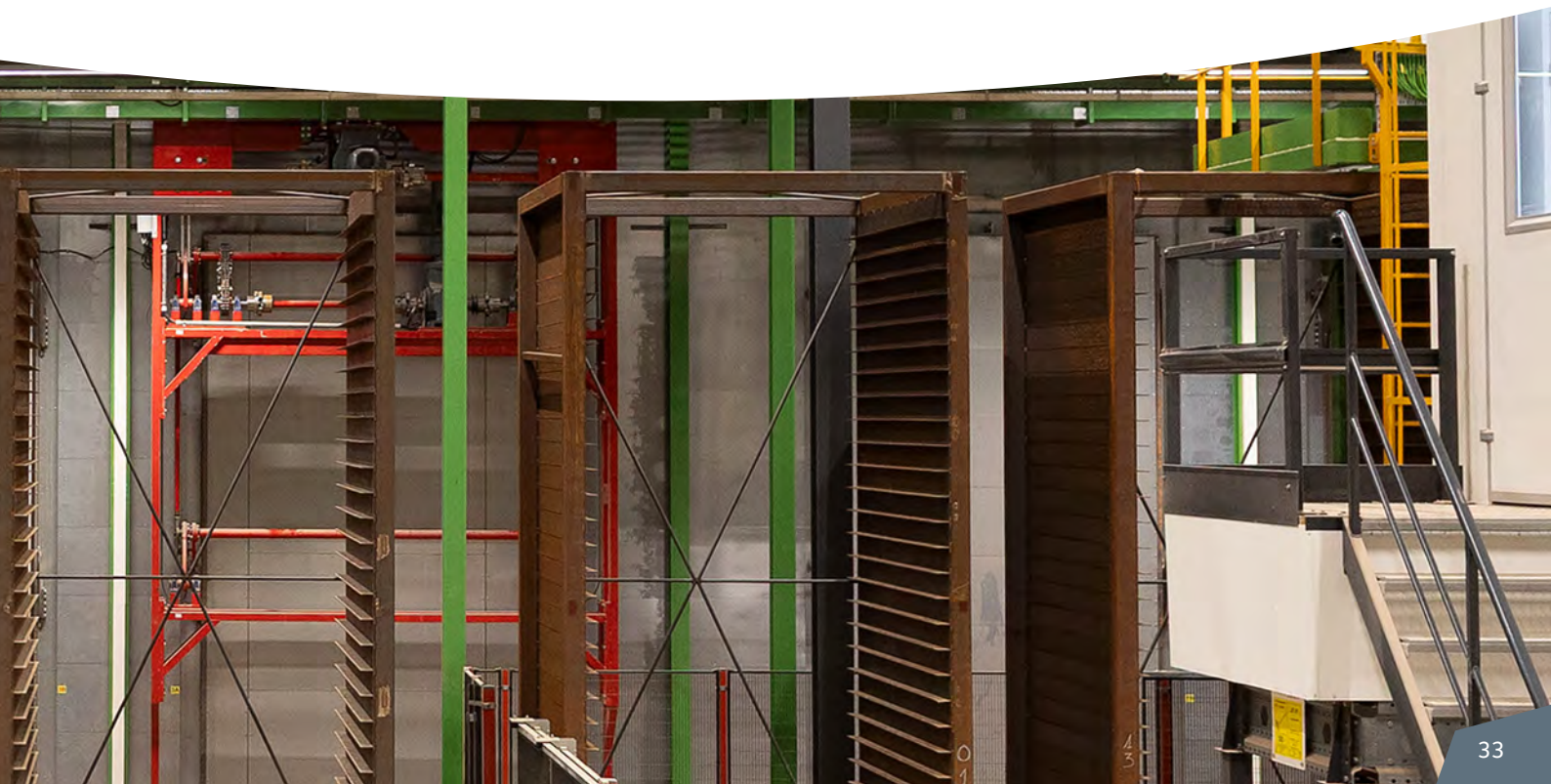
Vandersanden is taking a groundbreaking step in sustainable brick production in Beek with an investment of €35 million and an EIA subsidy of €850,000. The renovated 12,000 m² factory employs 40 people to produce facing bricks, including the narrower S-line. Thanks to a significant increase in capacity, up to 35 million bricks can be produced annually for markets including the Netherlands, Belgium and the United Kingdom.

Total CO₂ emissions reduced by 35%

At the heart of this innovation lies the unique steam-drying technology. Conventional drying rooms use hot air and natural gas, while Vandersanden in Beek utilises superheated steam generated through residual heat from the kiln and electric heat pumps. This results in the factory's total CO₂ emissions being reduced by 35%.

In addition to the new drying process, the press, setting machine and an advanced flue gas cleaner have also been upgraded. 75% of the factory was modernised, focusing on energy efficiency, lower emissions, and future-proofing the facility.

By implementing this innovative drying technique, Vandersanden demonstrates its pioneering role in the European brick industry, further solidifying its leadership in sustainable building materials and establishing a new benchmark for the sector.



Energy-efficient kiln in Tolkamer

The firing and drying process of bricks has a relatively large environmental impact. That is why Vandersanden decided to invest in an environmentally-friendly and sustainable tunnel kiln for pavers at its Tolkamer site, enabling energy-efficient production. Vandersanden is committed to aligning its production processes with CO₂ emission standards and is ready for the energy transition.

Tunnel kiln with a gradual firing process

Measuring 240 metres, the innovative tunnel kiln is approximately 60 metres longer than a conventional kiln. It replaces three older 140-metre tunnel kilns, while maintaining the same production capacity. In addition to its impressive length, the kiln has a stacking height of 80 cm. This enables heating and cooling during the firing process to occur much more gradually, resulting in significantly less heat loss compared to the previous kilns. In comparison to its predecessors, this kiln can reduce CO₂ emissions by up to 20%, representing an annual saving of 5,000 tonnes of CO₂.

The firing process produces the greatest energy savings, as the extended tunnel and improved insulation minimise energy loss. The kiln walls, roof and pipes are fitted with first-rate, ultra-thick insulation, ensuring optimal energy use, complemented by the latest firing technologies. Vandersanden has potentially built one of the most innovative and sustainable kilns in Europe. While the tunnel kiln principle is not new, the techniques and insulation employed are making the system even more energy efficient.





Energy transition

We source as much of our energy as possible from renewable sources. To generate heat and electricity, we use combined heat and power, 41,010 solar panels, and a wind turbine that supplies power to our factories.

To take the energy transition a step further, we recently explored the possibilities of a pilot project involving green hydrogen, generated from our own renewable energy and in collaboration with partners in the hydrogen supply chain. However, the project was not selected as the business case is currently not financially viable. As a result, it has been put on hold for the time being. We

will continue to monitor this avenue closely, so that we are ready to proceed as soon as the technological and economic conditions improve.

In parallel, we remain committed to further optimising our thermal processes within the existing framework, supported by artificial intelligence.

Own renewable energy compared to own electricity consumption has increased with 417% compared to 2020



Wind turbine in Lanklaar

In November 2021, Vandersanden began preparatory works for the installation of a wind turbine at the Lanklaar site. Construction was completed in early May 2022, and the turbine was officially commissioned on 2nd December. The turbine generates 10,000 MWh of green energy annually, equivalent to the consumption of approximately 2,000 households.

Over 50% of the energy generated will be used for Vandersanden's activities at the Lanklaar site. The remaining portion is supplied to the grid as green electricity. Vandersanden aims to make its own production processes and sector more sustainable, and give back to the community by supplying surplus green energy to the grid, meaning local residents also benefit from clean power.

Vandersanden selected a wind turbine model with minimal noise emissions and a monitoring

system to limit shadow flicker. The monitoring system measures and limits the shadow flicker impact on each facade, ensuring that it does not exceed eight hours per year and 30 minutes per day. Shadow flicker occurs when the sun shines on the rotating blades of the wind turbine, causing a moving shadow, which could be a nuisance for nearby residents.



The emissions trading system is a tax on local industry

Vandersanden is a pioneer in green technology within the construction sector. We work tirelessly towards achieving climate neutrality by 2050, but this goal requires a significant change in Europe's approach. In its current form, the emissions trading system is, in effect, a tax that drives local industry away—or worse, causes it to disappear altogether. It also risks slowing down the energy transition and driving housing prices up even further.

'Together to Zero' is our mission at Vandersanden: collectively striving for zero CO₂ emissions by 2050. We have invested €30 million in a factory that produces CO₂-negative facing bricks – bricks that do not emit CO₂ but absorb it. We are strongly committed to further enhancing the sustainability of our ceramic products and applications and now offer a wider range of narrower bricks and brick slips, which use fewer raw materials and result in lower emissions. We are continuing our pioneering role with new drying technology at our Beek factory, enabling more energy-efficient operations. We have also made substantial investments in on-site generation of green electricity by installing solar panels on all factory roofs and a wind turbine. Our offsite solutions also contribute to this transition to more sustainable construction. By using sustainable materials, minimising material waste and increasing efficiency in production, labour and transport, we support the development of new, environmentally friendly buildings and homes.

These green pilot projects make Vandersanden a frontrunner in the construction sector, and we will continue to innovate and invest to achieve our climate objectives. But we face a systemic failure.

The race for low carbon molecules

The greatest obstacle in our quest to become CO₂-neutral is the availability of low carbon molecules, which are energy sources that produce virtually no greenhouse gas emissions during their production and use, unlike traditional fossil fuels. Most of our bricks require firing at extremely high temperatures. At present, this cannot be achieved through electrification alone and to reach such high temperatures in a CO₂-neutral way, we need low carbon molecules such as hydrogen or biomethane. This applies not only to us but to many industries that require high-temperature processes.

A key challenge we face is that the availability of low carbon hydrogen does not meet the required demand. To make low carbon hydrogen available and affordable, Europe must invest heavily in the necessary infrastructure to produce and transport hydrogen.

Europe is already tightening up the EU ETS system. At present, we pay around 3 million euros per year in emission allowances, against an annual turnover of 250 million euros. That cost will rise to between 10 and 20 million euros in the coming years, and by 2040, it is expected to reach between





40 and 50 million euros. These amounts cannot be invested in innovation or decarbonisation.

On top of that comes a second problem: over-regulation. In theory, Europe has a single internal market; in practice, companies still face 27 different regulatory systems. For example, we have to certify our carbon-negative bricks separately in every country.

As a result, Europe is pursuing a counterproductive policy. It burdens and slows down the investments intended to enable the energy transition.

A future for the industry

The world is changing at breakneck speed, and European industrial policy is struggling to keep up. The United States and China are protecting their industries and supporting them with substantial subsidies. For years, European companies have faced significantly higher energy costs, while tensions in the Middle East are now pushing energy prices even higher. As a result, energy-intensive sectors are seeing the structural price gap with the rest of the world widening ever further.

Excessively high energy prices, over-regulation and mounting geopolitical tensions have plunged European industry into an unprecedented crisis.

The way forward lies in investing in innovation, ensuring affordable energy and finally delivering a genuine single market. In short, Europe must choose to support its industry rather than drive it away.

The European approach will force businesses to buy emissions allowances, limiting their ability to invest in green technology and slowing the energy transition instead of accelerating it.

The concept of emission allowances is not inherently flawed, provided the system is used to penalise players who fail to take steps toward reducing CO₂ emissions or refuse to use alternative energy sources. However, it should not be an extra cost imposed regardless of whether sufficient alternatives or low carbon molecules are available. The system becomes a pure tax on local industry, as it does not advance the energy transition but makes construction even more expensive. This adds pressure to the housing market, leaving more people behind.

It is high time for member states to increase pressure at the European level to amend the climate regulations – not only to secure a future for industry at home, but also to protect citizens and the climate itself. Otherwise, we risk losing on all three fronts.



Carbon Capture and Storage (CCS)

Vandersanden invests in technologies to capture and safely store CO₂. In innovations such as Pirrouet®, CO₂ is even used as a raw material. This circular and CO₂-negative brick is made from purified mineral by-products from the steel industry and is created through the carbonation process, in which CO₂ is permanently bound.

Pirrouet®, the CO₂-negative facing brick

The construction sector is under increasing pressure to reduce the environmental footprint of its materials and processes. In response, Vandersanden developed Pirrouet®, a facing brick that is both CO₂-negative and circular.

Pirrouet® is produced through a process that utilises carbonation: a natural chemical reaction in which CO₂ permanently binds to calcium-containing materials. During curing in a controlled environment, one tonne of Pirrouet® bricks absorbs approximately 60 kg of CO₂ permanently, resulting in a net negative CO₂ footprint. A key component of Pirrouet®'s composition is mineral raw materials, such as carbinox and stinox. These raw materials are extracted from residual streams of the stainless steel industry. Their extraction and processing are specialised processes that result in purified minerals.

This patented production method ensures that any trace heavy metals present are stabilised and safely bound, producing a facing brick that

can be processed without risk of leaching or environmental harm.

Thanks to the use of refined mineral residual streams, Pirrouet® consists of more than 80% secondary raw materials. The remaining 20% comprises carefully selected primary components such as sand, water and, where applicable, colour pigments. This significantly reduces the use of primary raw materials.

By giving high quality, carefully processed minerals a new application in a safe and stable construction material, Vandersanden contributes to closing industrial loops and to the development of safe, circular and future proof building materials.



Cultural Centre in Neeroeteren

The renovation of the Neeroeteren Cultural Centre is a textbook example of how sustainable building materials and collaboration can contribute to a greener future. This project is one of the first in Belgium to use Vandersanden's innovative Pirrouet® facing bricks.

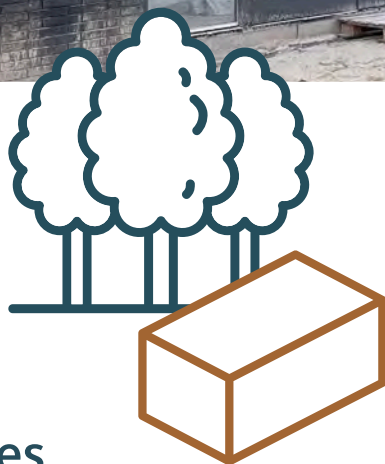
11.4
tonnes of CO₂
are permanently captured.

That is roughly equivalent to the CO₂
stored annually by

475 trees

(approximately 1 hectare of trees).





60 homes
store a total of

42.500 kg
of CO₂ permanently.

That is roughly equivalent
to the CO₂ stored by 60 trees
over 28 years.

60 homes in Groen Nobelhorst

In Almere, we are collaborating with the Heutink Group and SOME architects on 60 homes where sustainability, responsibility for people and the environment, and innovation come together. As pioneers, they chose to be the first in the Netherlands to build with our CO₂-negative Pirrouet® facing brick, realising a project that has permanently stored 42,500 kg of CO₂.

And finally...



*Together to Zero is our promise to the future;
a CO₂-neutral world for generations to come.*



With this Sustainability Report, we turn a new page. While Collective Well-being remains a cornerstone of our values, we are now fully committed to a climate-neutral future. Our ambition to be CO₂-neutral by 2050 is not separate from well-being, it is deeply connected to it, shaping our environment, our people, our industry, and our communities.

As the largest and one of the most sustainable family-owned brick producers in Europe, we bear a responsibility. We gladly accept that responsibility because we believe in what is possible when we work together. “Together we build greatness” – this motto lives not only among our 800+ colleagues but also extends to all partners, customers and suppliers who join us on the journey to climate neutrality.

We are proud of the progress we have already made, from using renewable electricity in our production processes to developing CO₂-negative and circular solutions, advancements in water use and providing a safe working environment for our people. We also recognise that the road to 2050

is long. There are challenges we have yet to solve and opportunities we cannot yet foresee – but our commitment remains steadfast.

This makes the journey exciting. As pioneers in green technology within the construction sector, we believe there are no limits to what is possible. In the coming years, we aim to make even greater strides in product transition, energy efficiency, the energy transition, and CO₂ capture and storage. With new horizons come new possibilities, and we are determined to make a difference.

Together to Zero is our promise to future generations. We promise to do everything in our power to achieve a CO₂-neutral world. A promise we can only fulfil by working together, innovating together, and continually raising the bar together.

Thank you for your interest in our journey. Your involvement motivates us to persevere, to keep pushing forward, and to dream big. Because the future we envision is not one we build alone – we build it together.

...en, once put it nicely: he didn't build
it is those people who build the business. That
and what makes the atmosphere at Vandersanden

Vandersanden, hat es einmal sehr schön
ft auf, er baute Menschen auf. Und es sind diese
uen. Genau das ist passiert, und genau das macht
so einzigartig.

VANDERSANDEN



At Vandersanden's 100th anniversary celebration, Lore Wuytack addresses colleagues and partners on behalf of the fourth generation.







FROM CRAFTSMANSHIP TO INNOVATION.
FROM CLAY TO KNOWLEDGE.
FROM FIRE TO VISION.

www.vandersanden.com

Version May 2026, all rights reserved.
No part of this publication may be reproduced in any form
without the written permission of Vandersanden BV.



VANDERSANDEN
HET MOOISTE MAAK JE SAMEN