



Science-led Sustainability

SUSTAINABILITY REPORT 2022

xella



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FOREWORD

ESG progress in a climate of change

Step-by-step in 2022, despite a turbulent global background, we have been working to progress our sustainability goals. From climate to conflict we are proud that Xella has responded to the year's challenges with increased ambition and delivery.



2022 was not only Europe's hottest summer on record, but the second summer in a row of record-breaking temperatures in Europe¹, with extreme weather happening across the world on a much more frequent basis.

As the climate changes, we want Xella to lead the construction sector in responding to the challenge. We have products that make a significant contribution to long-lasting, energy-efficient buildings and we have cut our market-based CO₂e emissions (Scopes 1 and 2) by close to 17% since 2019 through the installation of renewable energy sources, modernisation of boilers and other energy saving measures.

In 2022 we went a step further.

Xella has always been led by science. We are one of the only building materials firms in Europe to manage their own research & development facility, and house laboratories in each plant to test for more sustainable production recipes. So last year we also took the decision to commit to an ambitious, science-based target for our emissions reductions, a move that ensures our reductions pathway, including our supply chain, is aligned with what climate science demands is required to fulfil the goals of the Paris Climate Agreement.

Going Circular

To secure the future competitiveness of the company we want to produce more with less. And the work we do to build circularity is also a key part of the puzzle.

This includes investigating new ways to re-use old materials in our production rather than virgin raw material, investing in machinery and methods to cut production residues, cut-offs and waste at our plants, and rolling out services such as our blue.sprint solution that saved over 930 truck deliveries last year.

Digital solutions also reduce building costs, typically by at least 10%, and this helps make our products affordable. For Xella affordability and sustainability are two sides of the same coin.

Our efforts on climate, production residues and waste management and other material ESG topics discussed in this report are part of our continued commitment to contribute to the UN Sustainable Development Goals and the ten principles of the UN Global Compact.

Pulling together for victims of conflict

There is no doubt that the unprecedented backdrop of the conflict in Ukraine, and the rising inflation and soaring commodity prices that followed, created unprecedented challenges for our sector in 2022. Despite a relatively small proportion of our workforce being based in the affected area the response from all our employees has been emotional and supportive to all victims.

In particular, we should pay tribute to the work done by the Polish employees. In the face of a great wave of refugees they spontaneously took in families in their homes or volunteered to help at stations or in sports halls that became improvised accommodation for those fleeing the war. And our company continues to support with initiatives such as the financing of accommodation to our Ukrainian employees (working in other countries) and their families; and the creation of new jobs in Xella plants for Ukrainians – many of them women.

We are also proud that we introduced a new Communities Policy in 2022 to formalise our approach to supporting thriving communities around our plants and introducing a new corporate KPI for local charitable community projects donations.

On the environmental side, the conflict created high gas prices that have had the long-term impact of accelerating our efforts to be less dependent on one energy source and fast-tracked even greater investment in renewables and energy savings.

Building a safety culture and mindset

Amid these emerging challenges we have also kept a firm focus on the daily challenge of making sure anyone associated with Xella goes home safely at the end of the day.

While there is still a significant way to go to build a culture and mindset that delivers our zero injuries target, we continue to invest in safety culture with 39,174 hours of "safety at work" training in 2022 and are encouraged by the 10% drop in severe injuries.

Looking ahead, we will continue to make swift and meaningful progress against our sustainability targets, led by science and delivering against our mission to provide efficient, affordable and sustainable building materials products and solutions to customers.

Signed:

Christophe Clemente
Chief Executive Officer



Dr. Jens Kimmig
Chief Financial Officer



Thomas Bois
Chief Operating Officer



Dr. Michael Leicht
Chief Human Resources & Digital Officer



Cécile Fages
Chief Sustainability & Communications Officer



Davide Papavero
Chief Technology Officer



¹ <https://www.dw.com/en/europe-records-hottest-summer-ever-in-2022-says-climate-monitor/a-63055335>

About Xella

We are a leading European building materials provider of sustainable, efficient and affordable solutions. Xella Group's operational headquarters is based in Duisburg, Germany. Following the sale of the insulation business unit URSA in June 2022, Xella oversees 75 plants and sales subsidiaries in 22 countries².

SCOPE OF THE REPORT

The performance data and related information in this Sustainability Report relates to the 2022 calendar year and covers the operations of Xella International GmbH, unless otherwise stated, and is current as of December 31, 2022. This report includes information on all plants, offices and other operations owned by Xella Group. Currency amounts in this report are expressed in Euros, unless otherwise indicated. Part of the data used in this report (Energy consumption, CO2e emissions on scopes 1, 2 and 3, CO2e emissions intensity, training

hours, LTIFR) has been assured by independent external auditors (PWC) with limited assurance. This data is marked with a "✔" in relevant parts of this report including in the [Key Figures table](#) and [GRI Content Index](#). This report has been prepared in reference to GRI Standards 2021.

Further information is also available on the Xella Group website.

€1.37bn

Consolidated revenue during the 2022 fiscal year.

5,223

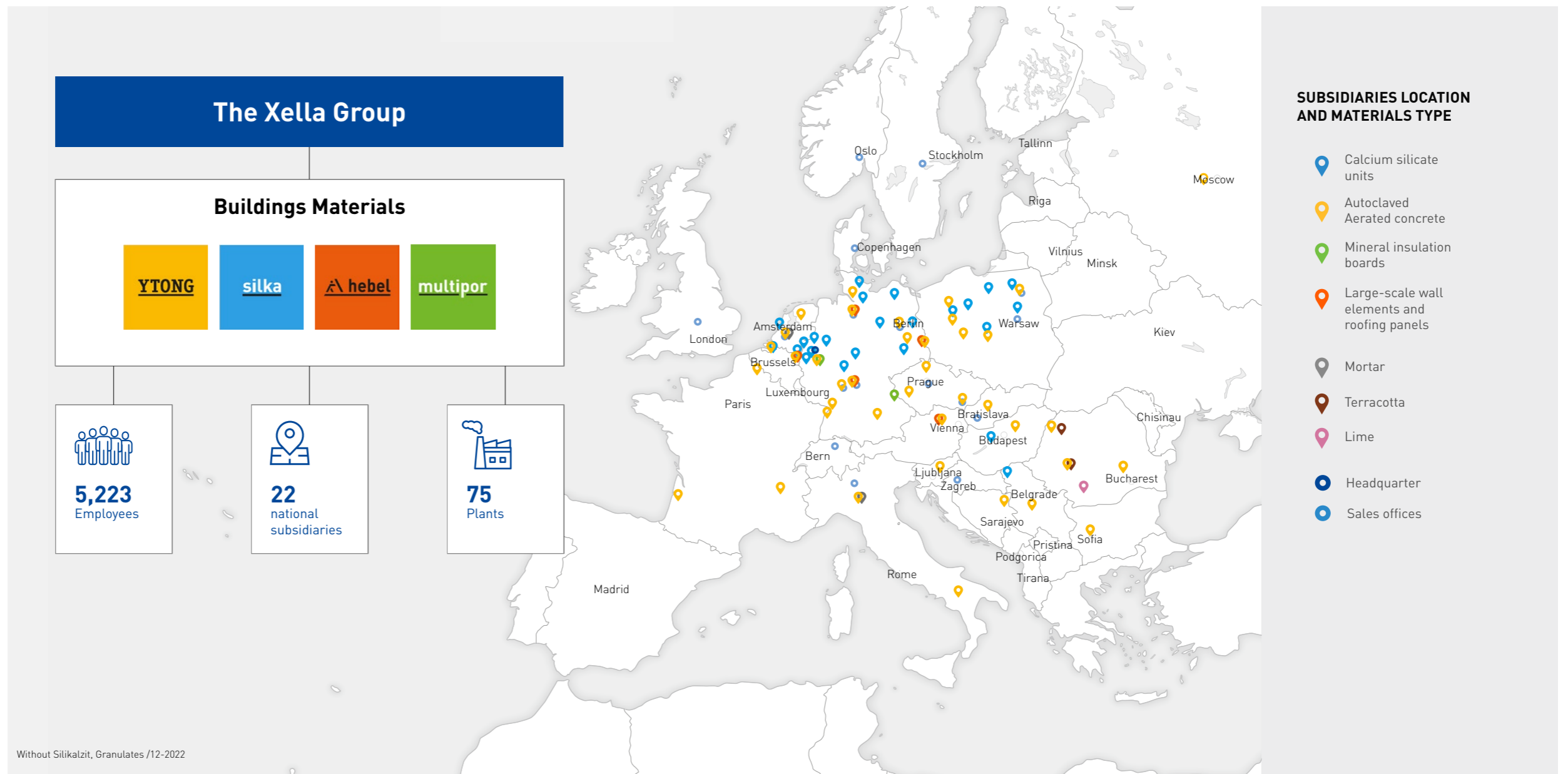
employees at end of Dec 2022

22

Number of national subsidiaries

75

plants in 16 countries



² As of 31 December 2022

Our 2022 highlights at-a-glance

€5.3m

invested in our dedicated T&F research facility. 75% of our research activities spent developing new methods and formulas to make our production even more sustainable.

1.5°C

Committed to a science-based target for emissions reduction, to formally align with a path to keep global warming below 1.5°C.

100%

of major suppliers comply with our Supplier Code of Conduct in 2022, introduced 'IntegrityNext' software to further improve supply chain due diligence.



50,000l

of diesel fuel saved per year by introducing smaller and electric forklift trucks to some of our fleet

1000t

of CO2e/year saved by an optimised heat recovery system at Deva in Romania.

20%

of managers across our Group are now female, rising from 19% in 2021.

€2.8m

invested in environmental improvements in 2022, set to increase very significantly in 2023.

14.2kt

reduction in CO2e emissions/year from energy saving projects such as solar panel installation in 2021 and 2022, generating a positive EBITDA impact of €2.8m.



Over

39,000

hours of safety-at-works training in 2022, with a 10% drop in the severity of LTIs

42%

rise in employees accessing online learning, over 7,000 training eLearning modules available.

€228,000

generated by our climate neutral brand Multipor for carbon offset projects including the Saint Nikola wind farm in North-East Bulgaria

100%

of production leftovers reused in Koningsbosch plant in the Netherlands, with a target for all plants to reach zero by 2030

14,000m³

waste saved in 2022 by projects using our blue.sprint digital solution

€100,000

New Community Policy approved targeting €100,000 support for communities around our plants by 2025.

EXTERNAL RECOGNITION

Awarded **Construction Manufacturer of the Year** by the Czech Association of Entrepreneurs in the Construction Industry.



Awarded 64/100 (Silver) by Ecovadis in France



Top ranked in our industry in 2023 by independent ESG ratings agency Sustainalytics³



Xella Hungary issued with official **Environmentally Friendly Product** certification by the Herman Ottó Institute

³ [based on 2021 data, which included Ursa business, today not longer part of Xella]

Table of targets/KPI and performance

4 Building Materials only, note URSA was still part of Xella Group until end of May 2022 but not included in this figure.

5 "Specified employees" are employees identified to be in a role/function with an increased compliance-risk exposure, as per the regular Compliance risk evaluation. "Compliance focus topics" are topics handled in the responsibility of the Compliance function, in differentiation to certain compliance-relevant topics that are

handled by other functions. The Compliance focus topics include especially anti-trust, anti-bribery, anti-money laundering, trade sanctions, data protection, as well as overarching aspects like Code of Conduct and Whistleblowing. "Training rate" means that each specified employee has received at least one training session each year related to a Compliance focus topic.

6 Relevant suppliers defined as providers of essential material, where single country procurement costs are over 50,000 euros

7 Incl. suppliers' CoC after legal assessment by Xella

8 2021 figure has been adjusted to reflect updated data

Key data in this section has been independently audited.















| Core target | SDGs | Performance for 2021 ⁴ | Performance for 2022 | Target for 2023 | Target for 2025 | Target for 2030 |
|---|---|-----------------------------------|------------------------------|--------------------------------------|-----------------|-----------------|
| Social | | | | | | |
| Reduce lost-time injury frequency rate by 47% by 2025 (Baseline year: 2019 – LTIFR of 8.9) |  | LTIFR: 8.4 | LTIFR: 10.1 | - | LTIFR: <5 | LTIFR: 2.5 |
| Zero fatalities |  | 0 | 0 | 0 | 0 | 0 |
| Reach 25% share of female managers by 2025 |    | 18.9% ⁸ | 19.8% | - | 25% | No target |
| Increase annual training hours per employee by 30% by 2025 (Baseline year: 2019) |    | 15.35 hours | 20.02 hours | - | 13.82 hours | - |
| Distribute annual community engagement budget of €100,000 by 2025 |  | - | N/A | €50,000 | €100,000 | - |
| Governance | | | | | | |
| Zero cases of fraud, bribery and anticompetitive activities |   | 0 | 0 | 0 | 0 | 0 |
| At least one annual training session of specified employees ⁵ for compliance focused topics. |   | - | N/A (implementation in 2023) | 80% | 100% | 100% |
| Proportion of relevant Suppliers ⁶ confirmed to comply with our Supplier Code of Conduct |    | 100% | 100% | 100% ⁷ | 100% | 100% |
| Implement risk management system for monitoring of ESG risks in supply chain |   | - | N/A | 100% of relevant suppliers monitored | 100% | 100% |

















TABLE OF TARGETS/KPI AND PERFORMANCE CONTINUED

4 Building Materials only, note URSA was still part of Xella Group until end of May 2022 but not included in this figure.

9 Please note we are in the process of setting a science-based target, working with the Science-based Target Initiative and this KPI will be updated once that process is completed.

10 Assuming stable production volumes 2019-2030.

11 Figures for 2021 have been adjusted to reflect updated data.

| Core target | SDGs | Performance for 2021 ⁴ | Performance for 2022 | Target for 2023 | Target for 2025 | Target for 2030 |
|---|---|-----------------------------------|----------------------|--------------------|--------------------|-----------------------|
| Environmental | | | | | | |
| Reduce CO2e emissions intensity (scope 1 and 2) by 30% by 2030 ⁹ [Baseline year: 2019] |   | -8.6% | -6.7% | -10.5% | -16.4% | -30% |
| Emissions intensity per category of product [kg CO2e / m³] | | | | | | |
| AAC |   | 30.77 | 30.55 | N/A | N/A | 23.78 |
| CSU |   | 40.89 | 43.97 | N/A | N/A | 32.16 |
| Multipor |   | 30.79 | 42.35 | N/A | N/A | - |
| Total CO2e emissions [tonnes of CO2e, scope 1 and 2, market-based] |   | 437,241 | 402,236 | Under construction | Under construction | 338,164 ¹⁰ |
| Total CO2e emissions (scope 3) in tonnes of CO2e |   | 2,239,578 | 2,199,306 | - | - | Under construction |
| Circularity | | | | | | |
| % of AAC and CSU leftovers directed from our plants to landfill | | | | | | |
| AAC |   | 11% ¹¹ | 13% | - | 0% | 0% |
| CSU |   | 16% | 25% | - | 11% | 0% |

Our products and services

Xella's products and services offer sustainable, efficient, and affordable construction solutions. All our products – Ytong, Silka, Multipor and Hebel – are fully recyclable, and strive for excellent thermal insulation properties, long-term durability, high load-bearing capacity and resilience to fires and earthquakes. Better never rests, and we spend 75% of our research activities on developing new methods and formulas to make our production even more sustainable.

¹² The lambda value stands for the thermal conductivity of a building material. The unit W/(mK) of the lambda value indicates the amount of heat in Watts per hour or Joule per second transferred through 1m² of a one-metre-thick material, at a temperature difference of 1 Kelvin. The lower the thermal conductivity (lambda value), the better the thermal insulation of a material.



Ytong

A leader in its market, the millions of air voids contained in Ytong's aerated autoclaved concrete (AAC) provide one of the best thermal insulations of any solid building material. The material is made from mineral substances including lime, sand, cement, and water. As well as being free of harmful substances, it is fully recyclable. It is both load bearing and insulating simultaneously, enabling an energy efficient exterior shell without the need of additional insulation material.

In 2022 we also evolved a low lambda¹² AAC block, lighter than our traditional blocks, and therefore providing even better emissions performance by requiring less lime and cement and improving building insulation by up to 10% per building.

APPLICATION EXAMPLE

With optimal energy planning and suitable building technology, and in combination with walls made of highly insulating Ytong blocks, a single-family house can achieve the best energy efficiency without an additional external thermal insulation composite system.



Silka

Silka is one of the world's most trusted calcium silicate building materials, made from locally sourced mineral raw materials of lime, sand, and water. Silka is an optimal solution for stability and longevity often used to build very slim wall constructions that withstand heavy strain while offering high-grade acoustic insulation. It creates calm, relaxing housing, frost-resistant and weatherproof with effective heat and moisture retention resulting in a healthy indoor climate.

APPLICATION EXAMPLE

The "Konstantinum" in Leipzig, Germany, was built with large-format Silka XL CSU blocks: It allows fast construction progress thanks to the large format and has a high load-bearing capacity with slim walls at the same time. This is how living space can be gained.



“Sustainability is fully part of the service we are offering to our key customers. We are exchanging with them on our respective sustainability roadmaps and trying to identify points that can support their strategies. As an example, we are participating to their Life Cycle Analyses for the typical buildings they construct, and this, in order to support their differentiation towards alternative types of construction.”

Thomas Bois
Chief Operating Officer, Xella Group

OUR PRODUCTS AND SERVICES

Multipor

Multipor is a climate-neutral brand for environmentally friendly, non-flammable insulation boards. It is highly recyclable and the material of both production plants in Germany are natureplus® certified¹³ as an environmentally friendly and non-hazardous construction product. We offset the CO2e emissions of our Multipor products and accessories, working with our partner ClimatePartner, and last year saved 27,072 tonnes CO2e¹⁴ through carbon offset projects including the Saint Nikola wind farm in North-East Bulgaria and protection of carbon-storing peatlands in Lichtenau, Germany¹⁵.

APPLICATION EXAMPLE

In Düsseldorf's Kö-Bogen district, Multipor is used to create the green roofs that have become a home to over 235 varieties of plants, insects and birds – including beetles on the Red List of endangered species.



¹³ natureplus® quality label marks environmentally friendly construction products being non-hazardous to health.

¹⁴ <https://fpm.climatepartner.com/tracking/14825-2111-1001/en>

¹⁵ https://www.xella.com/en_US/multipor-climate-neutral



Hebel

Hebel's large AAC panels are the first choice for non-residential construction. Supplied prefabricated, they are installed on building sites for such buildings as logistics centers, warehouses, or production and event buildings. Consisting of lime, cement, and sand, they are proven to meet simultaneous fire-safety and thermal insulation requirements for industrial buildings. They are produced to be environmentally friendly and fully recyclable with highly efficient thermal insulation and significant load-bearing capacity.

APPLICATION EXAMPLE

Fire safety and explosion hazards play a major role in the storage of medical goods and devices. In a new distribution center in Heerlen, NL, Hebel aerated concrete offers a flexible solution to a specific demand.



CASE STUDY

RENOVATION RISES HIGH ON THE AGENDA

It is not just in new-build developments where there is enormous demand for sustainable, efficient and affordable materials. Older buildings – whether family homes, commercial properties or historic buildings – can benefit immensely from renovation to improve the quality of life for users and the insulation to improve energy efficiency.

Thermal insulation of facades, roofs, and basements with Xella products such as Ytong, Multipor, or Hebel also reduces the need for heating, electricity-powered fans and air conditioners.

This is not only a great business opportunity for Xella it is a significant part of the wider climate challenge. According to the EU, buildings cause 36% of our greenhouse gas emissions and more than 85% of today's buildings will still be standing in 2050 – when Europe must be climate neutral.

This makes projects like our work in Boè increasingly important.

The Boè hut is located at 2,871 meters above sea level in the Dolomites in Italy, with a supporting structure dating back to the 19th century. The Xella Italy team led a modernisation of this popular tourist destination.

A team of scientists measured the hygrothermal properties of the stones in the historic part of the Boè Hut and concluded that Multipor panels which are mass and surface water repellent, which leads to better thermohygro-metric behavior were perfect for the thermal insulation.

Another advantage of the lightweight Multipor mineral boards: The building material had to be transported up the mountain by helicopter.

The hut stands tall as a picturesque example of renovation as an increasingly important priority for climate action in Europe.



OUR PRODUCTS AND SERVICES

SERVICES: DIGITAL SOLUTIONS

Our Building Information Modeling (BIM) tools, such as blue.sprint, can create a 'digital twin' i.e. an exact 3D virtual model of a construction that maps with specificity the total amount of materials required. Our digital services typify our mission to offer affordability and sustainability as they reduce the amount of materials wasted in the building process, save time and costs and improve safety by shifting more production to an automated factory rather than a construction site.

In 2022, Xella's international blue.sprint team worked on 1,750 building projects in Europe (about 8% of our work pipeline) including schools, hospitals and family housing. This activity helped reduce material use by around 4%, meaning around 14,000m³ less production residue was generated across our production lines, and avoiding approximately 930 truck deliveries.

Not only does the use of digital twins bring benefits for the environment and the climate, it also helps reduce building costs, typically by at least 10%, proving sustainable construction also makes economic sense for Xella and our customers.

Our building companion (B2C) portal also helps consumers to manage their own construction projects in a more sustainable way. It matchmakes individuals and small organisations with the best building materials and construction companies for their project. The portal was used by approximately 5,000 unique users in 2022.



“Digitalization brings a lot of productivity into the process as all information about the building from start to end is brought into a digital twin. This reduces costs and brings the best solution to the client.”

Prof. Dr. Michael Eilsfeld
CEO of Eilsfeld Ingenieure
Together with Xella, he realized the R&D project Variowohnen, using prefabricated standard elements and open BIM for housing design and construction.

14,000m³

less production residues were generated across our production lines.



“I very much hope that other countries or even the European Union will further establish BIM in law. Sustainability directives do the trick - and just like them, BIM should move from being a request to a requirement.”

Rasmus Jensen
Digital Transformation Manager, Xella

CASE STUDY

DIGITAL TWIN SAVES OVER 24 TRUCK LOADS OF CSU IN RUHR VALLEY

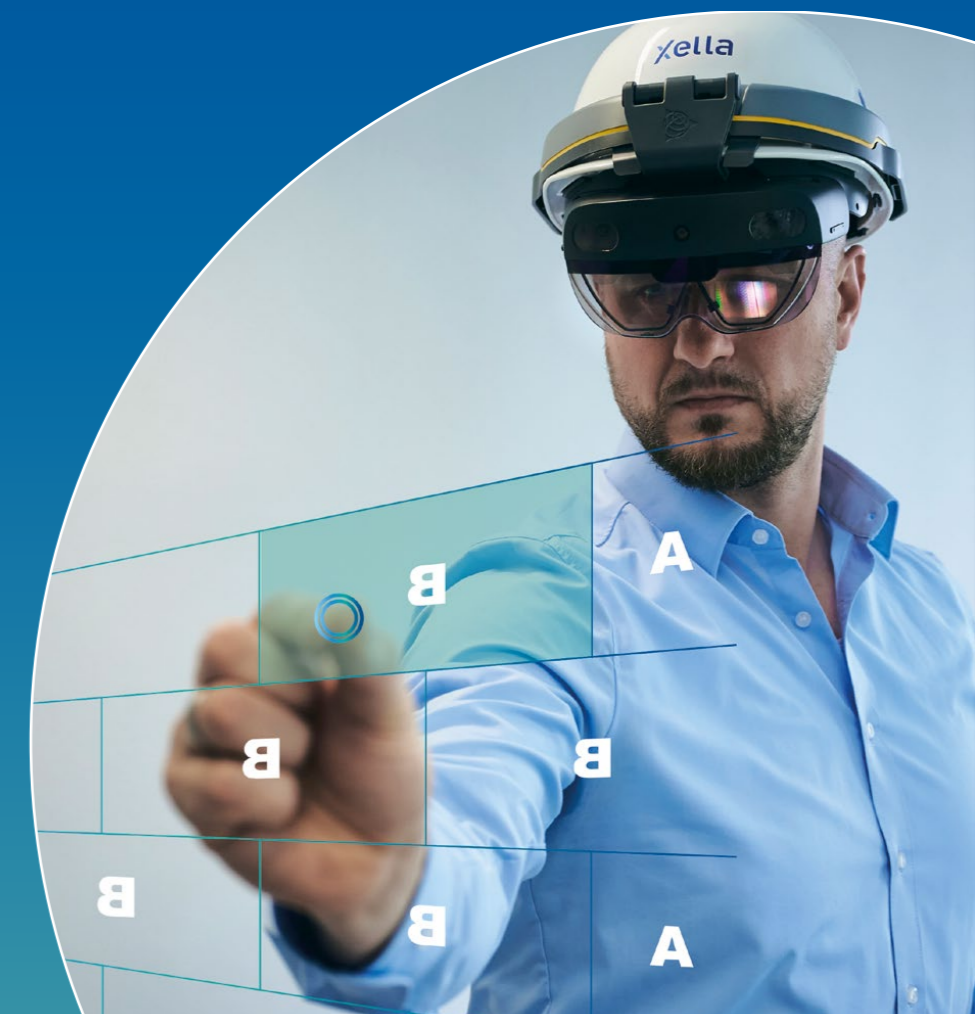
360m³

of waste material were saved using our digital solutions.

The Kronprinzenviertel development in Dortmund, Germany is creating over 600 family homes, 25% of them allocated for social housing, and is being built using our digital solutions.

Due for completion in 2024, the development is due to use around 12,000m³ of tailor-made calcium silicate units and digital twinning has already saved at least 360m³ of waste – equivalent of 24 truckloads including delivery.

Kronprinzenviertel will create a new district for all generations in the city centre.



1 Governance





1.1

Our business model and ESG strategy

We recognize that the construction industry, including the production of building materials, is a huge emitter of greenhouse gases, and as the world takes steps to reduce emissions towards Net Zero by 2050 that presents significant challenges to our business. Other ESG risks from health and safety to water management present material issues for our business model. However, we also see this as an opportunity.

Over the past few years, Xella has evolved from a pure manufacturer of building and insulation materials into a customer-oriented solution provider for the entire building envelope. We strive to provide energy-efficient, cost-efficient and sustainable solutions for residential and commercial buildings especially for the European market.

In this rapidly changing industry, our sustainability strategy has become integral to our business strategy including our inputs, operations, and outputs (Figure 1). Our maintenance of high environmental, social and governance (ESG) standards in our products, manufacturing and management processes, and our supply chain, matches market demand and helps future-proof our business.

It also prepares us for a changing regulatory landscape. For example, the EU has introduced a “renovation passport” – intended to make it easier for property owners to renovate a property to emission-free levels – and the use of digital solutions such as BIM is mandatory for public buildings under certain conditions in countries such as [Norway and Denmark](#).

The evolution of our ESG strategy began in 2020 when we undertook a major exercise to sharpen our ESG focus, setting an ESG roadmap after wide consultation with stakeholders. This included a commitment to conducting a bi-annual

materiality assessment to understand and monitor our most material ESG issues, commissioning an external sustainability ratings agency to assess our ESG risk management and setting short and medium targets on a range of ESG priorities. These targets and KPIs were updated in 2022 following the sale of the URSA part of the business.

The Xella ESG strategy is based on the three pillars:

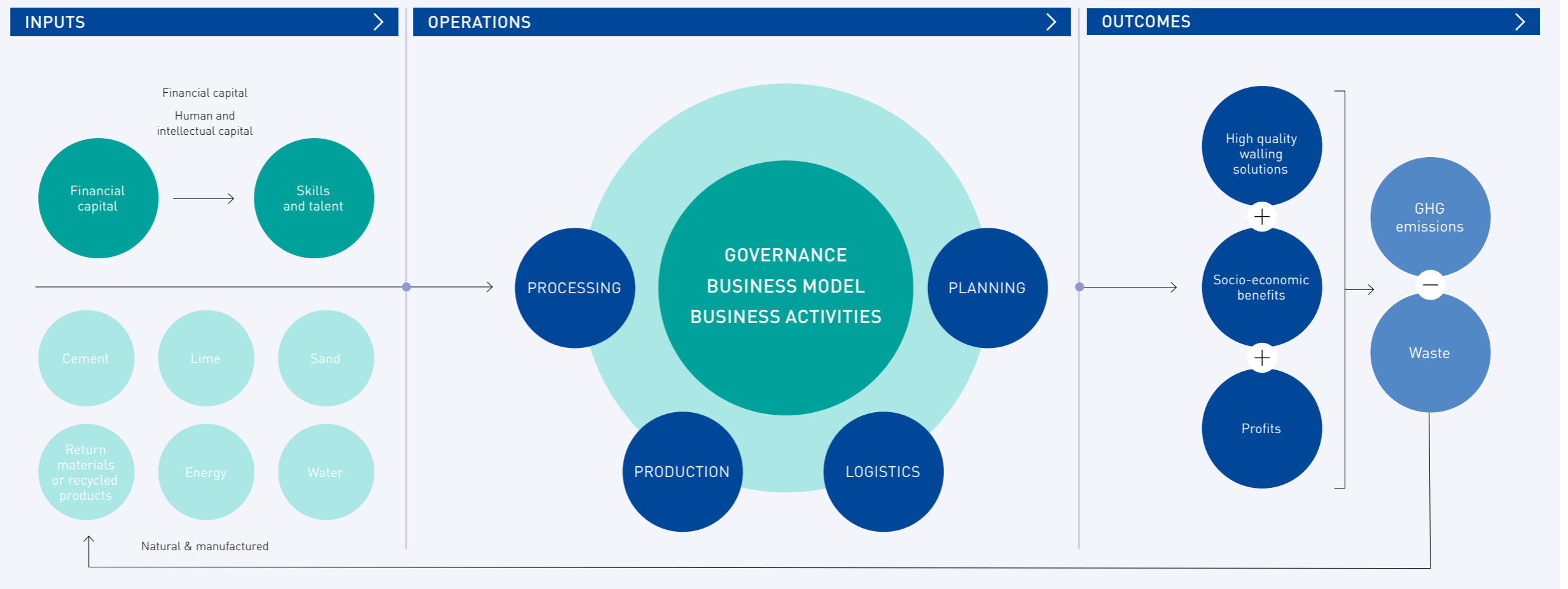
- Reducing our CO2e emissions across our operations and more globally along the full value chain. Scope 3 CO2e emissions have been assessed precisely in 2022 and a significant share of the CO2e content of our products comes from the raw material we purchase (in particular lime and cement)
- Developing the circularity of our materials: AAC and CSU are almost fully recyclable, and we want to increase the share of recycled content in our recipes

- Providing safe and inclusive working conditions, development opportunities and gender diversity: As people are the heart of our organization

[These targets](#) capture milestones that are key to our ESG strategy and our business model, including progress to both minimize our negative ESG impacts (such as our GHG emissions and the amount of production residues and cut-offs that go to landfill) and to maximise our positive benefits including training to upskill our workforce and support local communities.

Our focus in 2022, and throughout 2023, is to continue to develop and mature our practices, step-by-step, to implement this strategy and respond to the priorities it focused on. This includes extending our targets where necessary, for example by setting a science-based target for emissions reductions.

Figure 1
XELLA'S BUSINESS MODEL





1.2

Stakeholder engagement

From suppliers to shareholders, customers to employees, a commitment to listen to our stakeholders is at the heart of our sustainability governance. This helps us build strong and trusting relationships grounded in transparency.

We consider a stakeholder to be any person or organization potentially impacted by our activities, or who can affect the success of our business including customers, employees, local communities around our plants, suppliers and the scientific community. Table 2 offers examples of our outreach to each of these groups in 2022. Our engagement methods include regular meetings, presentations and digital communications and, every two years, including in 2022, undertaking a materiality assessment to help establish which ESG issues are most material to our business – and to ensure management views are aligned with those of our wider stakeholders.

Collaborating with experts in our sector

Knowledge is the most important building block in the industry, and to achieve our vision to build a sustainable world, we actively reach out to peers and thought leaders in our sector to share our expertise and explore how construction can operate in more ecological and efficient ways. This includes running the Xella Academy which acts as central hub of our expertise in many areas and – free of charge and unlimited – runs events and webinars.

In 2022 we broadcast [Studio X webinars](#) with customers on topics such as greener architecture, construction methods and changing policies.

In Xella Czech and Slovakia, we developed the “Xella Dialogue” format inviting customers, designers, students and construction companies, to join us at an online conference. In 2022, 240 people joined the conference live and the online contributions were accessed by 9,200 construction experts¹⁶.

In picture
Content, expert knowledge, innovation, interaction – that is the web event studio X



¹⁶ <https://news.xella.com/company/sustainable-building-how-xella-supports-building-managers-craftsmen-and-architects>

Figure 2
EXAMPLES OF STAKEHOLDER ENGAGEMENT IN 2022
→

| CUSTOMERS  | |
|---|--|
| Feedback channels | Materiality assessment process |
| Events including webinars | Disclosure such as our annual sustainability report |
| IN PRACTICE | Our Studio X webinars invited customers to join Xella leaders and other experts to discuss issues from construction methods to sustainability. We also received direct feedback from Chief Sustainability Officers that our ESG activity was a key point of differentiation against competitors. |
| EMPLOYEES  | |
| Internal newsletter | Disclosure such as our annual sustainability report |
| Intranet | Townhalls |
| Human Resources team and routine meetings | Seminars and conferences |
| Materiality assessment process | Female Talent Pool |
| IN PRACTICE | Our new digital ‘Milestones’ newsletter was launched for all internal staff in 2022. This monthly mailer provides updates from across the Xella Group and includes opportunities for employees to share input. |
| SUPPLIERS  | |
| Purchasing team | Materiality assessment process |
| Scope 3 emissions project | Disclosure such as our annual sustainability report |
| IN PRACTICE | Materiality assessment process for first time. Our purchasing team also hold regular meetings and events with suppliers. |

1.2 STAKEHOLDER ENGAGEMENT

Figure 3
**EXAMPLES OF
 STAKEHOLDER
 ENGAGEMENT
 IN 2022**



| LOCAL COMMUNITIES  | |
|---|---|
| New community policy at Group level | Local engagement via each plant manager |
| Materiality assessment process | Disclosure such as our annual sustainability report |

IN PRACTICE In 2022 the [Xella Romania](#) team participated in the Bucharest Marathon. Proceeds went to the United Way Foundation to help young people from difficult social backgrounds to find a professional path and develop skills.

| INVESTORS  | |
|---|---|
| Investor Relations team | Disclosure such as our annual sustainability report |
| Materiality assessment process | |

IN PRACTICE We ask ESG research provider Sustainalytics to assess our ESG performance and make these results available to investors on request. A summary is also available on the Sustainalytics website.

| SCIENCE AND EXPERT COMMUNITIES  | |
|--|--|
| Through work of T&F | Events such as the international Xella Colloquium (Oct 22) |
| Materiality assessment process | Disclosure such as our annual sustainability report |

IN PRACTICE Events such as Xella Colloquium and forums such as Xella Academy and Studio X webinars.

CASE STUDY 

ENGAGING SCIENTISTS AND EXPERTS ON CLIMATE-FRIENDLY CONSTRUCTION

In October 2022 our research company, Xella Technologie-und Forschungsgesellschaft mbH (T&F) hosted an international exchange to discuss policies to help achieve a more sustainable construction industry at the [Colloquium](#) at the Humboldt Forum in Berlin.

Over 100 experts from 14 countries and four different continents met to engage in dialogue, discuss strategies and expand networks. Xella experts were joined by representatives from the World Green Building Council, European Parliament and leading academic institutions.

>100

experts from 14 countries and four different continents met to engage in dialogue.





1.2 STAKEHOLDER ENGAGEMENT

Materiality Assessment 2022

Our long-term success depends on understanding our stakeholders' expectations, working with them, learning from them, and talking to them transparently about our business.

In late 2022, we conducted a comprehensive Materiality Assessment exercise with internal and external stakeholders to help set our sustainability priorities for 2023 and beyond.

In total we reached out to 297 internal stakeholders (employees and management) and 137 external stakeholders (customers, NGOs, investors, suppliers, experts) and gathered their input on 26 material topics. This represents a wider list than in previous materiality assessments and was based on topics named in international sustainability standards (including UN Global Compact, GRI, SASB), industry guidelines and regulatory requirements.

The materiality matrix on the right displays the results of this multi-step exercise, with the issues deemed most material by both internal and external groups displayed towards the top right. It suggests that 'Climate' and 'People' issues are the two most material fields of action, which include individual issues such as 'CO2e emissions', 'occupational health & safety' and 'energy efficiency'. 'Resources & circularity', 'products & services' and 'governance & stakeholders' are the three other priority fields of action.

In the remainder of this report, we highlight our approach to managing each of these five material fields of action.



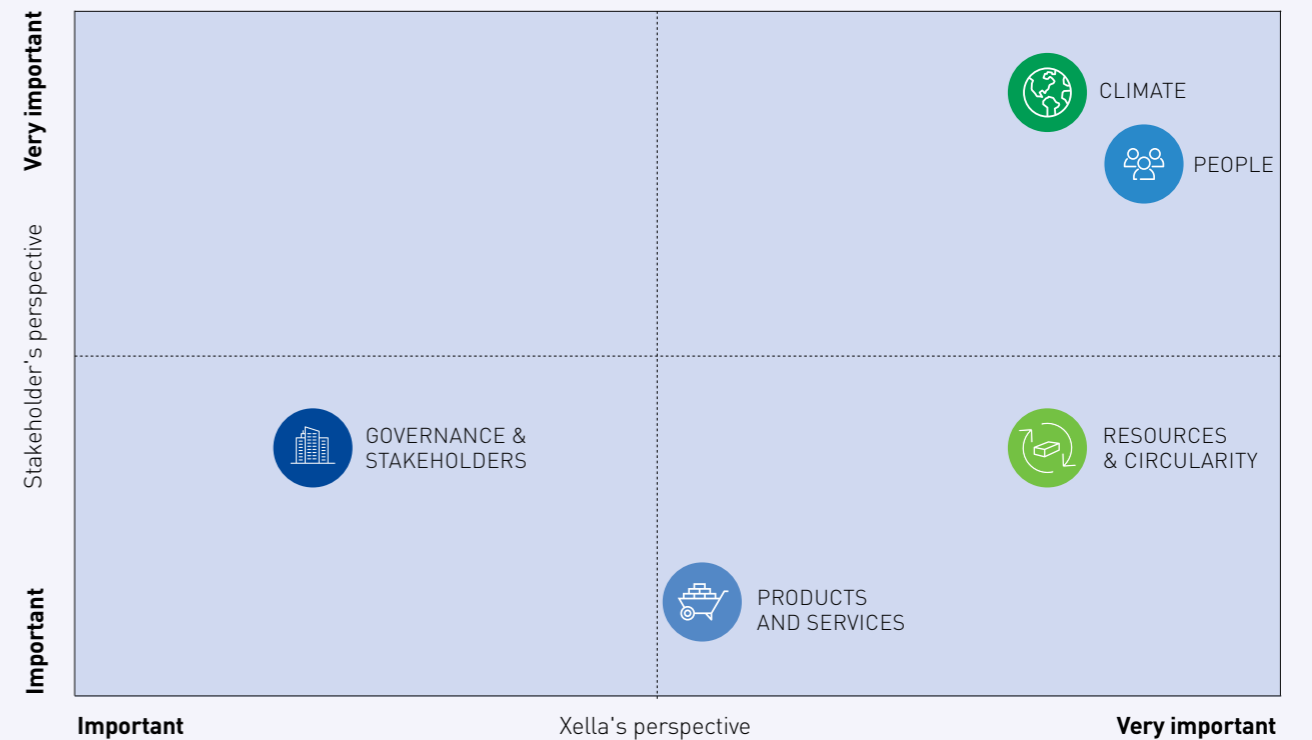
“Affordability for our market [single-family housing] means two things: Affordability now and affordability in 10-20 years. Working with Xella we love to build sustainable and energy efficient houses, because these buildings help meet the extra costs during use, such as energy, and that is part of affordability and sustainability. “

Heiko Schröder
CEO Massivhaus Mittelrhein GmbH (a long-time Xella customer)

From an internal management point of view, it is encouraging that the priorities highlighted in this assessment align closely with our corporate priorities to reduce GHG emissions, improve and develop the circularity of our materials, improve diversity and to ensure safety, development, and opportunities for our workforce. We note that areas such as 'attraction and development of talent' is a much higher priority among external audiences than internal, and we use results such as this to inform our overall approach.

Figure 4
AGGREGATED MATERIALITY MATRIX (II/II)

Materiality matrix displaying the fields of action



CLIMATE

- CO₂ emissions
- Energy efficiency
- Renewable energy & alternative fuels
- Adaptation to climate change
- Biodiversity

RESOURCES & CIRCULARITY

- Circular economy
- Efficient use of resources
- Waste management
- Responsible & resilient supply chain
- Water management

GOVERNANCE & STAKEHOLDER ENGAGEMENT

- Customer satisfaction
- Business ethics & integrity
- Sustainable financial performance & resilience
- Transparency
- Community engagement

PEOPLE

- Occupational safety & health
- Working conditions & employee well-being
- Attraction, retention & development of talents
- Diversity & inclusion

PRODUCTS AND SERVICES

- Energy efficient houses & buildings
- Innovation & research
- Product quality & safety
- Affordable housing & buildings
- Building process efficiency
- Low-carbon product portfolio
- Digitalization

Key data in this section has been independently audited.



1.3

Governance of ESG

Setting and delivering on our ESG targets is central to the success of our business, and we have clear and transparent governance structures to manage this activity.

The Xella Executive Committee (ExCom), which includes our Chief Executive Officer and Chief Finance Officer, is formally responsible for setting and implementing the sustainability strategy including meeting relevant targets.

In 2023 we aim to link executive compensation with achievement of our CO2e emissions reduction KPI - and plan to disclose this in more detail in next year's report.

ExCom is supported in its decisions by an ESG Steering Committee, led by the Chief Sustainability Officer, which includes experts from across the Group's business units. The Committee meets monthly and conveys its decisions across the organization and, when relevant, externally. It is responsible for monitoring our ESG impacts, tracking progress against our ESG goals, improving and developing new ESG policies, programs and initiatives as required and ensuring regular stakeholder engagement.

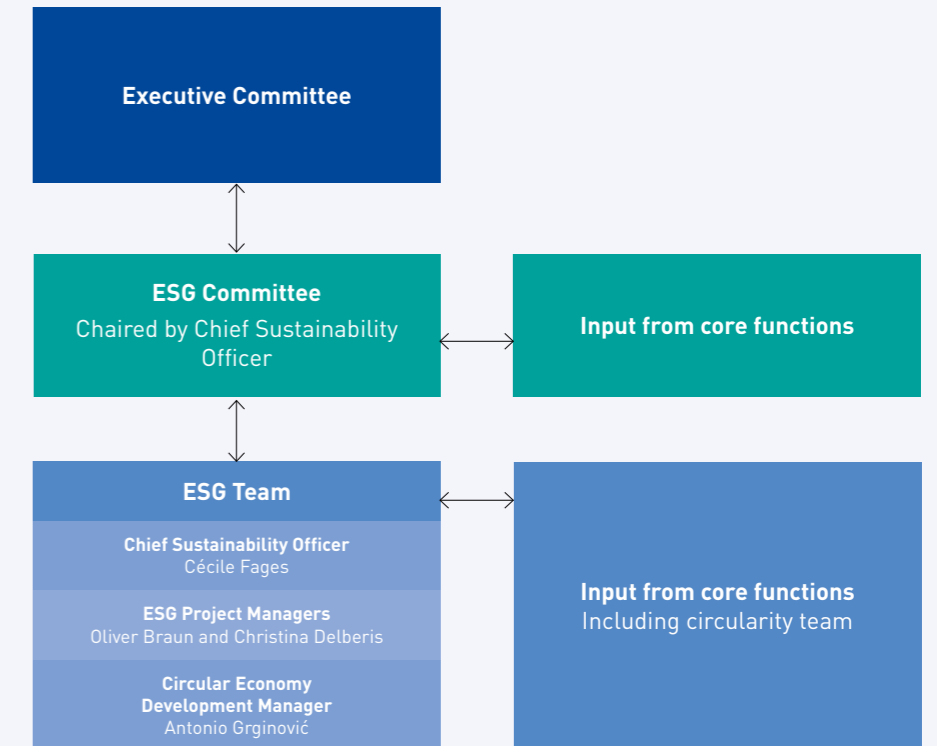
Global company governance and compliance are the direct responsibility of the Xella Group CFO, who is also a member of the Executive Committee.

In 2022 we succeeded in establishing a dedicated ESG Department under the leadership of the Chief Sustainability Officer. This is currently a team of 3.5 FTE, which supports the work of the ESG Committee. The Chief Sustainability

Officer is also a permanent member of the Capex Board and of the Innovation Steering Committee to ensure ESG is part of the decisions criteria inside Xella Group. In 2023 we will be rolling out ESG training for the wider workforce led by the ESG team.



Figure 5
ESG GOVERNANCE AT XELLA
→



Sustainability-linked loan

Since January 2021, Xella has also had a Group financing agreement – the Senior Facilities Agreement – which includes three ESG KPIs as margin relevant ESG triggers. The three KPIs are our targets to reduce CO2e emission intensity, increase glass wool recycled input and increase annual training hours. For each KPI, we have set annual target levels for the term of the SFA (until 2028) which provide an improvement path for each of the agreed KPIs and would trigger additional interest expenses if milestones are not met.

The compliance or non-compliance with each of the ESG KPI targets must be confirmed annually in form of an ESG Compliance Certificate.

In 2022 we successfully met the targets in relation to this loan.



“As soon as I started at Xella it was very clear that sustainability was not something talked about once a year in a report, there is work being done from the factory floor to the Board room to deliver more sustainable construction methods and materials.”

Oliver Braun
ESG Project Manager, Xella



1.4

Compliance and doing business in an ethical way

We have a strong culture of responsible behaviour and compliance, underpinned by our Code of Conduct and our company values: Responsibility, professionalism and dialogue, openness and appreciation. A full set of our corporate policies including our Group-wide Code of Conduct or Anti-Trust Compliance Guideline is available online.

In picture
Compliance trainings are an integral part not only of the onboarding process, but also as a refresher in everyday working life.



We have zero tolerance for fraud, bribery, and any type of anti-competitive or discriminatory behaviour. Donations to politicians, political parties, or political groups are generally prohibited and Xella Group made zero political donations in 2022.

We expect all Xella employees to act with integrity; our Code of Conduct is available in 17 languages and provided to our new employees already during onboarding. Training to comply with our guidelines is included in the onboarding process as well and we offer regular refresher training. In total 13,166 hours

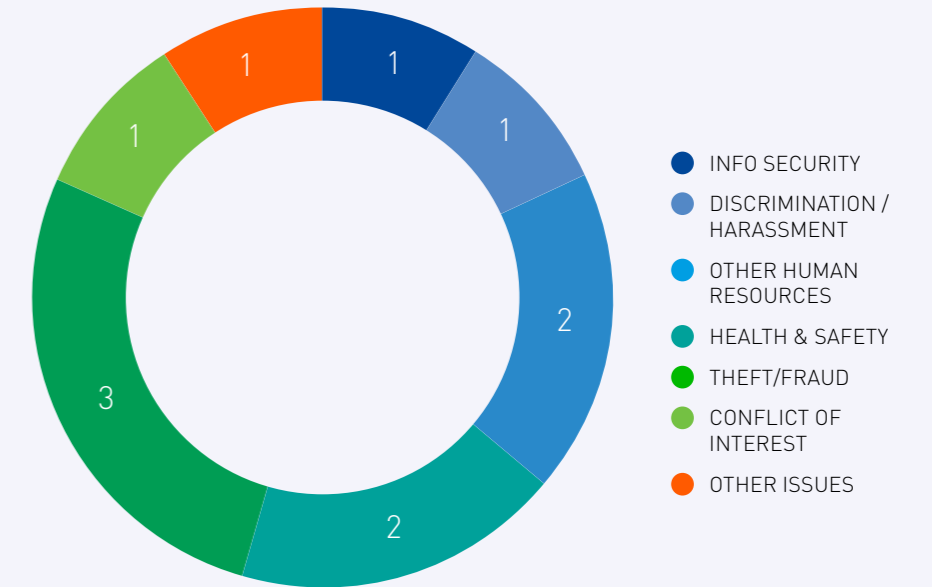
of training on compliance-related topics and guidelines was provided in 2022 – an 85% increase on last year¹⁷.

The Executive Committee and our shareholders are informed regularly about relevant compliance matters and topics in dedicated quarterly compliance reports. The Compliance function has a direct reporting line to Xella's management board to be able to address important or pressing compliance matters with the necessary priority.

Last year we achieved our target for 100% of relevant suppliers (i.e., providers of essential material, where single country procurement costs are over €50,000) to comply with our Supplier Code of Conduct. New (relevant) suppliers with whom we established a business relationship in 2022 were asked in February 2023 to accept compliance with the Supplier Code of Conduct and all of them confirmed it by March 2nd, 2023. In parallel, we are implementing a risk management system to monitor our supply chain for ESG risks.



Figure 6
NUMBER OF WHISTLEBLOWING COMPLAINTS BY THEME – 2022
→



Regarding tax, we fully comply with the relevant tax requirements in the countries in which we operate. In all operating countries taxes are reported regularly through the disclosure of the financial statements according to local GAAP and consolidated financial statements.

Two of the key areas of focus for our compliance team in 2022 were the disposal of the URSA business unit in early 2022, ensuring this was offboarded in compliance with all relevant regulations and transferring know-how and processes necessary for their compliance function, and a project to build a new Compliance Management System (CMS).

We will have spent over €300,000 on the new CMS by the end of the project and the system is due for implementation in 2023. It is based on international best practices, specifically, the German IDW PS 980 auditing standard. The CMS will be a crucial tool to ensure that we comply with the expanding regulation in our countries of operation and meet stakeholder expectations regarding a sustainable business governance. We have also begun to train a network of local compliance delegates to ensure that compliance guidelines are embedded and followed in the countries in which we operate.

Another key challenge for the compliance function this year was prompted by the conflict in Ukraine, which caused the successive implementation of severe sanctions targeting Russia and Belarus by several jurisdictions, including the EU, UK and the USA. Xella operates one plant in Russia and we acted swiftly after the sanctions regimes became effective to ensure compliance, including ceasing any trade by our Russian subsidiary outside of Russia, and instructing our operating units to cease or limit as appropriate the provision of any technical or financial support to our subsidiary or other Russian entities.

Xella offers a system of integrity reporting channels to employees and stakeholders, through which they can confidentially inform us about assumed integrity breaches and transgressions of laws and regulations. In 2021 we upgraded our whistleblowing system by offering independent external contacts who can be approached in the local language of the respective country of operation, and actively promoted this in our plants and other locations. We appreciate that 2022 then showed an increasing number of reports.

Concretely, we received eleven reports in 2022 via our integrity reporting

channels. All reports were evaluated, in three cases the investigation was not concluded at year end 2022. In those cases where the allegation was confirmed, we took appropriate measures for remediation and/or sanctioning. This included organizational and process-related adjustments.



“We work to foster a culture that goes beyond compliance and build Xella’s reputation as a good and honorable corporate citizen.”

Frank Fuchs
Head of Xella Group Compliance

¹⁷ Based on training withing building materials function in 2021 (7,117 hours)



1.5

Collaborations

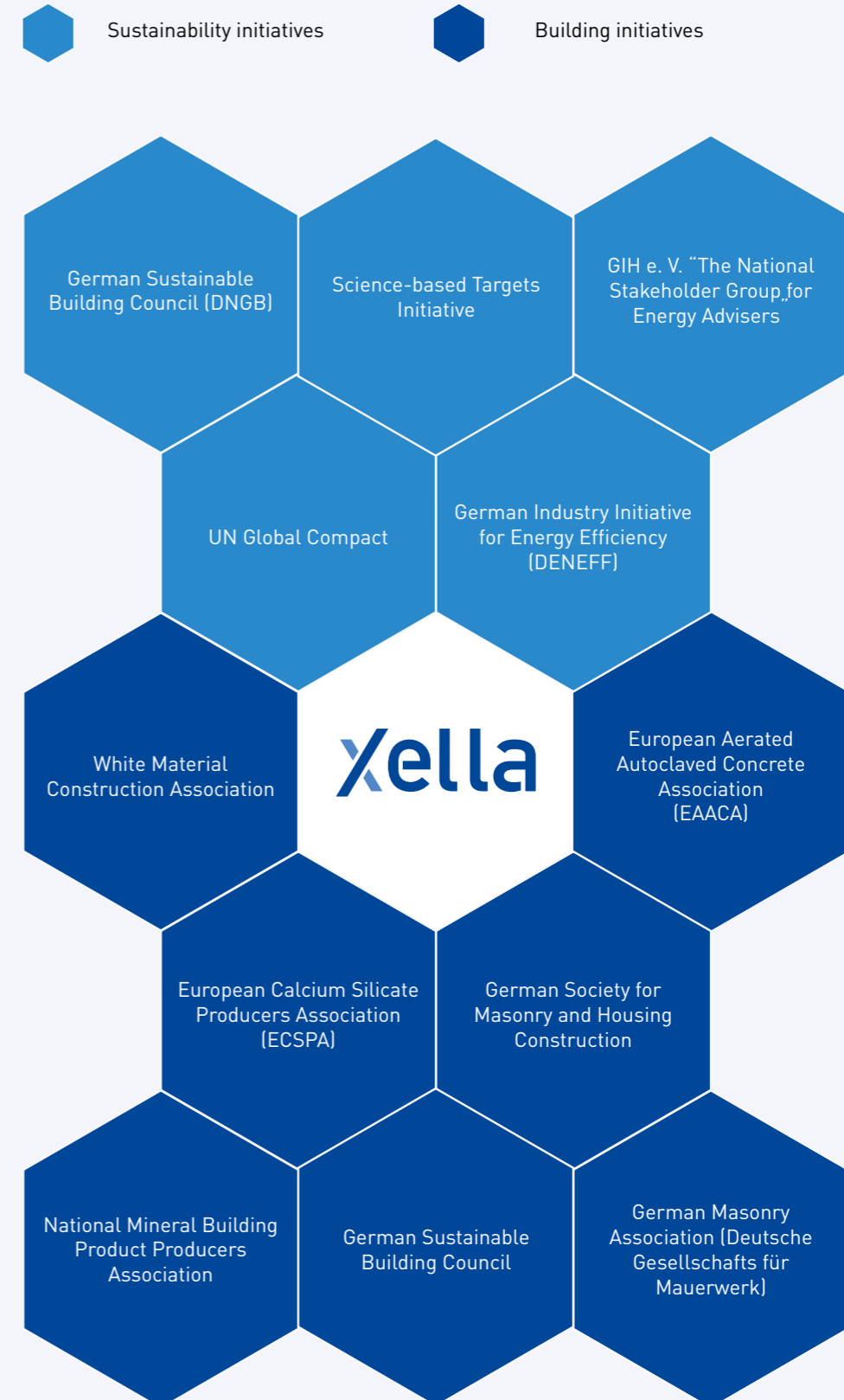
We know that our vision to build a more sustainable world requires collaboration and partnership with all our stakeholders. We work with a wide range of initiatives and partnerships to build a climate-friendly construction industry, including membership and full commitment to the ten principles of the UN Global Compact.

In picture

Xella regularly drives innovation, promotes knowledge, and the networking of experts, here at the Colloquium "Mineral Building Materials for Climate-Friendly Building".



Figure 7
ASSOCIATIONS AND INITIATIVES WE COLLABORATED WITH IN 2022



CASE STUDY 

COLLABORATION ON INNOVATION, TO STAY AHEAD OF THE CURVE

For over 30 years Xella has been a partner of Europe's largest innovation campus 'Living Tomorrow' – seeking to answer questions like *'What will the building of tomorrow look like?'* and *'Where and how will we live in the future?'*

"The building of tomorrow will be part of an organism," predicts Peter Lesage, Digital Enterprise Software Architect BIM at the Xella Group and one of the Xella experts helping to explore smart technology at the campus.

The "Building of Tomorrow" is at the heart of the campus and serves as an exhibition and conference venue for business, science and other interested parties. Various working groups have come together to address issues relating to building technologies, and Xella is contributing its in-depth know-how and application examples, with other key players in the construction and other industries.

For Peter, there is no question that digital twinning technology will become established on the market. And he has other visions for the future of tomorrow's buildings. "Working together with the partners of living tomorrow has opened my eyes again that we have to keep a close watch on the day after tomorrow.



"Working together with the partners of Living Tomorrow has opened my eyes again that we have to keep a close watch on the day after tomorrow. The paradigm shift you practice when listening to key players of other industries makes you reflect your own pursued business model."

Peter Lesage
Digital Enterprise Software Architect BIM at the Xella Group



2

Our people





PEOPLE

2.1

Occupational Safety

We consider safety a core value of our organization. We have a medium-term target to reduce accident frequency (LTIFR) by 47% by the end of 2025¹⁸, and a long-term target to decrease it further by 2030, with robust policies and procedures in place to achieve those goals.

Management approach

Overall responsibility for Health and Safety rests with our executive board and our global policies and control mechanisms are set out in our [Group Directive on Health & Safety](#). This policy includes instruction to all local managers to implement a health and safety management system based on international standards such as ISO 45001 and detailing elements such as standard operating procedures, regular risk assessments and training of employees. Since 2017, we have been rolling out guidance on avoiding our most significant hazards, known as our ten “Life Saving Rules (LSR)”. So far, we have rolled-out seven of them.

Core to our approach is recognition that targets and rules alone will not achieve zero harm. We also aim to build a safety culture and mindset. We encourage constant dialogue on safety at all levels from daily shift dialogues at our plants to a standing item on safety performance at Board meetings and Safety Days at our plants. We also invest heavily in training such as our Total Safety Leadership program, and encourage each individual – employees, contractors and visitors – to show leadership, speak up should they see any safety issues that need addressing and be constantly assessing risk.

To monitor progress, we track both ‘lagging’ indicators like LTIs (i.e., incidents that have already occurred) and ‘leading’ indicators such as near misses and safety walks that help prevent incidents from occurring.



“Our safety training is embedding a ‘speak up’ mindset. Like a muscle, the mindset needs to be constantly trained and engaged to stay sharp and to encourage people to think differently and openly.”

Daniel Marczinkowsky
CEO Middle West Europe
(Germany & Switzerland), Xella

18 Based on a 2019 baseline

Figure 8
OUR TEN LIFE SAVING RULES



✔ Roll out started in 2017

🔄 To be rolled out



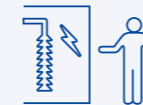
✔ 1. TRAFFIC ROUTE CONCEPT

Procedure for regulating internal traffic by means of road marking, signs and pedestrian routes.



✔ 2. EXTERNAL TRANSPORTS

Procedure for informing and instructing transports on the Xella premises. This governs contractual safety regulations, local instruction signage of drop-off locations and the authorization of our employees.



✔ 3. ELECTRICAL SAFETY

Procedures for handling electrical work and installations. In particular: Qualifications of electricians, tools, inspection of electrical installations, execution of electrical work.



✔ 4. MOBILE EQUIPMENT

The process includes the requirements for safely operation and handling of mobile equipment (e.g. forklifts, cranes, wheel loaders).



✔ 5. LOCKOUT/TAGOUT

A method of working safely on or in plant areas or machines by blocking all energy sources and securing them with personal locks and tags so that unintentional start-up is impossible.



✔ 6. SAFE DRIVING

Procedure describes the technical equipment and condition of vehicles and safe behaviour when using vehicles for work purposes.



✔ 7. WORKING AT HEIGHTS

Procedure describes the technical, organisational and personal safety precautions required when working at height.



🔄 8. HAZARDOUS MATERIAL MANAGEMENT

Procedure for handling, using and storing substance with hazardous characteristics for humans and the environment (e.g. aluminum, oils, dusts).



🔄 9. CONFINED SPACES

This procedure describes how to work safely in confined spaces (e.g. autoclaves, silos, mills, sewers and shafts) and provides important instructions for preparation and execution.



🔄 10. MACHINES SAFETY

Procedure describes the safeguarding of plant and machinery using technical protective equipment and the safe use of this protective equipment.

✔ Key data in this section has been independently audited.



PEOPLE

2.1 SAFETY CONTINUED

We also continue to monitor for Covid-19 and ensure high quality hygiene standards across all our plants.

If an occupational accident occurs, we have a formal process to analyse the root causes of the incident and communicate lessons learnt to all line managers across the group in order to prevent a similar incident occurring elsewhere.

We encourage business partners, contractors, and third parties to comply with our safety rules. We also carry out technical assessments, led by local specialized engineering companies to ensure that machinery is maximized to protect health and safety and that equipment complies with local safety standards and cross-border legislation such as the EU Machinery Directive.

Performance in 2022

We invested over €4.1 million in health and safety improvements in 2022. This included capital investments such as safer machinery or protection fences, and systems improvements such as our 'Prosafety' software. We also spent in training, including the further roll out of our Total Safety Leadership (TSL) program.

Performance against our safety targets in 2022 shows we have a long way to go in our journey towards zero accidents, but we are making some progress. The annual data was disappointing. Lost time injuries rose by 19% this year (14 more incidents than last year), pushing LTIFR up by 20% to reach 10.1 in 2022. However, the majority of these cases came in the first half of the year, with rates dropping after June, following our latest phase of training being completed.

Our TSL program empowers individuals to take personal responsibility for others and to show leadership on safety. 94 executives took the training in 2021 and last year it was rolled out further to line managers, maintenance managers and shift leaders, as well as managers from sales and administration, across several local languages. In total 611 leaders participated in the TSL program in 2022 .

We are also encouraged by a 10% reduction in 2022 in the severity of injuries, by zero fatalities and that 35 plants – including Ploiesti, Romania - recorded zero LTIs. This shows our target for 2025 is achievable. The long-term trends are clear, with LTIFR having dropped by 45% since 2017.

Key data in this section has been independently audited.

In picture
The logout/tagout rules of the safety trainings are put into practice.



In picture
Our Safety Day in Loosdorf, Austria saw 57 participants engage in hands-on activities on how to manage a range of practical safety risks from fires to forklift trucks.

Our tracking of leading indicators tells us that Xella management completed 1,865 safety walks in 2022 and 127 near-misses were reported (44 near misses, 21 unsafe acts and 62 unsafe situations). Near misses are incidents that had the potential of becoming an LTI and investigations give us a chance to put corrective actions in place to constantly improve standards across the Group.

One innovation that has proved successful in 2022 has been the piloting of 'Safety Days', where production at the plant is stopped for a day or a shift and replaced with practical presentations and experiences about real-life safety risks such as fires, forklifts, distractions, and impairments. We ran seven Safety Days in 2022, and they proved not only a good chance to raise awareness of how to manage safety risks, but they also send an important message: Safety comes first, and your manager wants safe production not just volume of production.

Looking ahead, we aim to carry out a Safety Day at all plants in 2023. We will also continue to roll out the TSL program both to those yet to undertake it in production and to administrative functions at Xella – as injuries can be just as easily sustained in an office as they can in production.



“Safety is a value in itself and goes hand-in-hand with running a profitable business. They are two sides of the same coin and that is why we encourage our entire workforce to be proactive and thoughtful about safety. Our focus in 2022 has been to change mindsets and make sure people care, and show visible leadership on safety every day and in every setting.”

Dirk Grosche
Head of Group Health, Safety & Environment, Xella

CASE STUDY 

ENCOURAGING A 'SPEAK UP' CULTURE ON HEALTH AND SAFETY

Catalin Sandu, Plant Manager in Ploiesti, Romania, about 60km from Bucharest, oversaw zero Lost Time Injuries (LTIs) at his plant in 2022, thanks to an accountability-centered health and safety philosophy.

When asked about his approach to health and safety Catalin said he encouraged all employees, regardless of position, to speak up when they see something wrong or if they observe areas for improvement. "Whether you are the CEO or a floor manager, we are all human beings and we all care about everyone getting home to their families safely". He says a culture which encourages employees to speak up on safety at any time is vital.

Every shift at Catalin's plant begins with a "safety moment", a dedicated timeslot for employees to raise concerns or voice ideas on how to improve safety. "We think this is crucial for creating a workplace where people can speak openly" Catalin said, brandishing a set of flashcards that help spur discussion in early morning meetings. He continued saying "our safety moments allow us to develop and reinforce best practice at our plant and always generate a lot of discussion".

Having worked at this plant for almost 12 years, Catalin has first-hand experience of the health and safety measures at the facility and across Xella. He spoke of the rigorous training that Xella gave him and his shift managers to prepare him for his role, including the Total Safety Leadership program. He said that he was continually impressed with the company's willingness to purchase safety equipment that improved working conditions, as well as bringing in new technology and best practice from other facilities within Xella's network.

More importantly than this, he emphasised, was a corporate culture that always puts safety first. "In all my time at Xella, there has never even been a discussion about cutting corners on safety". Catalin said that this culture, one that holds everyone accountable and emphasises consistency, is a foundational part of his philosophy as a manager.

In total 35 plants across the Xella Group recorded zero LTIs in 2022.

"Whether you are the CEO or a floor manager, we are all human beings and we all care about everyone getting home to their families safely."

Catalin Sandu
Plant Manager in Ploiesti,
Xella Romania





2.2

Communities

It is vital to our business that we build good relations with the local communities that surround all our plants and administrative buildings. This is a key factor in the recruitment and retention of talent and in securing our supply of goods and services.

Management approach

In 2022 we concluded a review of our community engagement and development processes with the publication of a new Community Policy, applicable globally for the entire Group. This policy was informed by international standards, including the Human Security Business Partnership Framework of the United Nations and the guidelines of the International Finance Corporation.

In terms of community development, the policy sets out our ambition to foster positive social impact both on group and site level, responsive to local needs. An overall budget (set at €50,000 for 2023) includes an allocation to a group-wide activity (€30,000 for 2023), and a separate allocation (€20,000 for 2023) is made available for site-and location-specific initiatives. The latter budget is allocated according to the number of employees with our 10 biggest locations being given initial priority. To win approval, community development initiatives must focus on promoting one of five UN Sustainable Development Goals, which are aligned with Xella's purpose and missions: quality education (SDG 4), building resilient infrastructure (SDG 9), reducing inequalities (SDG 10), constructing sustainable cities (SDG 11), or improving life on land (SDG 15).

Oversight for the implementation of this policy rests with our Chief Sustainability Officer, with local plant managers reporting to her on the implementation of both community engagement and development activity.

It is our ambition to continuously expand our impact and Xella has set a formal KPI to increase our annual budget for community development to reach €100,000 by 2025 (and to include more than 50% of employees in the scope of implementation).

In terms of community engagement, our policy commits us to respectful cooperation with all our local communities. Each plant has in place systematic and ongoing stakeholder dialogue which is complemented by a transparent and responsive grievance mechanism. Where a grievance is registered it is managed in the first instance at plant level. Where escalation is required, the process is managed by a country level Chief Technology Officer, with ultimate oversight from the Chief Sustainability and Communications Officer.

Separate to the budget approved for community engagement and development, we also maintain the Xella Emergency Fund which is financed by both Xella Group and monthly donations from employees to support employees and their families in urgent times of need and hardship. The Fund also contributes to the community as it can be used for external aid, for disasters such as flooding or war as well as for financial assistance to charitable organizations. In 2022, the Fund supported several organizations, for example "Kindernothilfe Duisburg" or "KID- Kind in Düsseldorf", and was also engaged in projects related to the Ukraine war.

2,000

In 2022, Xella Romania planted 2000 trees in the area around its plant and Xella Germany plans to plant a tree every time one of its employees welcomes a new baby into their household.



“Our success is built on the support of the local communities around our sites and projects. So we are delighted our new Community Strategy sets out a clear path for how we can help these communities to thrive, aligned with our purpose and with the mechanisms to ensure their participation.”

Marius Dragne
CEO Xella Romania

CASE STUDY

FUNDING QUALITY EDUCATION IN LAUSSIG

As part of Xella's ongoing commitment to supporting local communities last year, our Laußig plant in Saxony, Germany partnered with Klasse2000, an organization aimed at promoting a healthy lifestyle and preventing violence and addiction in German elementary schools. The Laußig plant has provided funding for a school class for a full year.

Organizations like Klasse2000 benefit underserved communities by giving specialized education and training aimed at children between the ages of 6-10, helping the next generation live healthier, safer and more fulfilling lives. Classes range from helping kids to understand healthy eating to gaining self-confidence and building friendships with an emphasis on resolving problems non-violently and saying no to harmful substances.

This supports our commitment to supporting local communities in line with UN Sustainable Development Goals such as SDG4: increasing access to quality education and reducing inequalities (SDG 10). We look forward to expanding our positive social initiatives in the coming year.



Image: Stockphoto Gettyimages



2. PEOPLE

2.2 COMMUNITIES CONTINUED

Performance in 2022

Restructuring our approach to community engagement and development, as outlined above, was a key focus of our year, with our new policy approved by Xella Executive Committee in October 2022. This will be implemented across ten pilot sites throughout 2023.

Other community initiatives included a donation of over 10 m³ of Ytong products to a local municipality in Austria in order to build a kindergarten. Similarly, we supported the Bullet Warsaw Foundation in Poland, a charity supporting disabled people, with Multipor materials for a local project. Some plants are also active networks

with the local community, for example our plant in Rotenburg, Germany – which celebrated its 50th anniversary in 2022 is a supporter of the Rotenburg Industry Forum, the first meeting of which was also held at the Ytong plant.

In Poland the team also supported a local university (WSB) that educates engineers, provided pro-bono lectures at technical universities and supported the “Combatant” Nursing Home in Ursus (pictured) with personal visits and practical help.

In Romania, local teams were engaged in several community initiatives including the planting of over 2,000 trees in the Sibiu area and participation in the Bucharest Marathon to raise funds for the United Way project to help young people discover and develop skills.



“Our new Community Policy is a huge step forward that means we can establish need and provide support in a fair and appropriate way to our supportive local communities across Europe.”

Christina Delberis
ESG Project Manager, Xella

In picture
Xella employees visiting and supporting the “Combatant” Nursing Home in Poland.



In picture
Planting of over 2,000 trees in Romania – one of our several community engagement initiatives within Xella Group.



In line with expertise, existing initiatives and with materiality assessment, Xella’s community development initiative have a clear focus on the following SDGs:

Figure 9
XELLA’S COMMUNITY DEVELOPMENT AND ENGAGEMENT INITIATIVES ARE BASED ON SDGS
→



Promoting quality education

e.g. initiatives supporting schools/universities



Building resilient infrastructure

e.g. initiatives supporting renovation/rebuilding of infrastructure



Reducing inequalities

e.g. initiatives supporting minorities or people in need



Constructing sustainable cities

e.g. initiatives supporting sustainable urban mobility



Improving life on land

e.g. initiatives to improve biodiversity

CASE STUDY 

COMING TOGETHER TO SUPPORT VICTIMS OF THE UKRAINIAN CONFLICT

The conflict in Ukraine, which remains ongoing at the time of writing, has created enormous suffering with over seven million refugees thought to have crossed the border to seek temporary help in Europe. This has affected many of the communities around our plants, especially in Eastern Europe.

Many of our employees have offered practical and emotional support to these victims of conflict including taking families into their homes or volunteering at large spaces such as sports halls that have become improvised accommodation.

In Poland, the community teams supported refugees and workers who originated from Ukraine through, among other initiatives, purchasing backpacks with pencil cases and other school equipment that enabled children to continue with education, financing the purchase of bicycles, and a 'winter clothes' project to acquire several hundred pairs of shoes and warm jackets. The HR team have also provided psychological support for employees in crisis (including those for whom a close family member has died) working with the [Helping Hand](#) platform for mental health in English, Polish and Ukrainian.

Xella Group also continues to support with initiatives such as the financing of accommodation to our Ukrainian

employees (working in other countries) and their families; and the creation of new jobs in Xella plants specifically for Ukrainians – many of them women.

The Xella Emergency Fund last year also partnered with the German Red Cross to launch an initiative to support people in Ukraine in need of help and to enable employees to make donations. Xella Group supported this employees' initiative by doubling the amount of donations made by employees. In total €51,200 has been distributed to the German Red Cross.

Xella distributed a further €100,000 together with the Emergency Fund to several initiatives, in which Xella employees were mostly involved on a voluntary basis. The money was used to support projects for the welfare of needy children or the transport of medicines and relief supplies to Ukraine. From providing shelter for refugees to donations in kind in the form of baby food and medicines, a wide range of aid measures were undertaken.

In picture

Helping others is deeply embedded in our corporate DNA and values – through the Xella Emergency Fund or the support of local communities like our colleagues from Poland have been helping their Ukrainian friends.



2. PEOPLE

2.3

Recruitment and retention of talent

Our capable and committed workforce is the bedrock of our company, and we invest to retain and recruit the best talent, which was more important than ever in 2022 given the workforce shortage in most of Europe.

In picture
Continuous education, including virtual trainings, is an important part of the professional development of our employees.



Management approach

Our approach to recruitment and retention includes the provision of fair and attractive wages and benefits, flexible working options, a non-discriminatory working environment and high-quality training. We have a core KPI to increase annual training hours per employee by 30% by 2025¹⁹. We also believe our commitment to being a climate-friendly and sustainable company is an important part of attracting and keeping talent for our firm.



“Xella should feel like a place to learn as well as a place to work. We have a corporate goal to drive up levels of training and we want employees to feel invited to challenge themselves by learning new skills or taking their abilities to the next level.”

Dr. Christiane Schlüter
Head of People and Organizational Development at Xella Group

¹⁹ Baseline 2019

We have several mechanisms for employee engagement including employee satisfaction surveys, individual performance development reviews and internal communication tools.

We aim for equal pay and provide at least minimum wage in all countries in which we operate with performance-related bonus structures. Employees get benefits such as healthcare options and opportunities for different working time models to maximize work-life balance and to access support to help with elderly or childcare.

As a participant in the UN Global Compact, we are committed to respecting labor rights principles and the International Labour Organization’s fundamental conventions and to providing Freedom of Association, with our guidelines available online.

Currently there are 2,988 employees (57.2%) covered by collective bargaining agreements at Xella.

In picture
The ability to work remotely creates more flexibility for family care, for example.



30%

We have a core KPI to increase annual training hours per employee by 30% by 2025.



Image: iStockphoto Gettyimages

²⁰ Key data in this section has been independently audited.



2. PEOPLE

2.3 RECRUITMENT AND RETENTION OF TALENT CONTINUED

85.9%

Overall group retention rate was at 85.9% in 2022.

€1.9m

was spent in training in the Building Materials Business Unit (current scope of Xella) in 2022.

In picture

Once a year, the apprentices from Germany meet at the Xella headquarters in Duisburg, Germany.



Performance in 2022

Our workforce consisted of 5,223 own employees (HC as of 31 December 2022) in 22 countries. This included a retention rate in Germany at 89.8%. Overall group retention rate was at 85.9% in 2022.

Given widespread labor shortages in Europe we believe that upskilling our workforce and managing talent is more critical than ever. In total almost €1.9 million was spent in training in 2022, making close to €4.5 million over the last three years in the Building Materials Business Unit (current scope of Xella). We exceeded our target to provide 11.57 hours of annual training per employee in 2022, providing 20.02 hours of training on a wide range of technical, managerial, personal development and practical skills (up by 30.4% vs 2021 on the current scope of Xella activities).

Training hours in Poland alone increased by a total of over 3,392 hours (+24.6%) across all areas in 2022 compared to 2021 (in BU BM).

This exceptional achievement is linked to the very high number of safety leadership trainings that have been organised in the plants and offices, and to the strong push on compliance as well as diversity and inclusion trainings in the organization.

Our workforce has also responded well to an increase in e-learning options, which we originally introduced during the pandemic, and now have almost 7,000 training courses and e-learning modules offered and delivered. In total the number of employees accessing online learning in 2022 rose by 42% to 2,531 with a 114% increase in time spent on e-training.

Digital facilities are also a big part of our communications with employees. We introduced a digital monthly 'Milestones' newsletter in 2022 for all our employees, to supplement two-way communications via our intranet as well as our social media channels on LinkedIn. Our next employee survey is scheduled for 2023.

In 2020 we piloted additional support to protect the mental health of our employees. These include training for managers on well-being via 'Project butterfly' in Poland and in the same country the provision of a Fast Line to trained psychotherapists as part of healthcare provision. Due to the high and positive demand, this offer was continued and expanded in 2022.

Finding new talent

The lack of labor has also led us to innovate in our recruitment methods in 2022, for example using employee referrals, and a campaign to advertise for apprentices on bread bags or pizza boxes in Germany which proved highly successful.

Part of our efforts to build the workforce of tomorrow is also Xella's support for the education of young people in universities and schools. This including, for example an ongoing collaboration between Xella Bulgaria and the University of Architecture, Civil



In picture

Practical training of Polish students in handling the mini cranes on a construction site.

Engineering and Geodesy including providing specialist lectures; support of the 'Short Way' project with Stockholm University and the Swedish Public Employment Service to increase career development for talented students and a project with Leibniz University in Germany to explore a paperless construction site.



“Special times require special measures. The wave of millions of refugees from the Ukraine has created an unbelievable willingness to help in Poland, but over time it has also created fears, insecurities and, in some cases, prejudices. Xella’s webinar on the cultural differences between Poland and Ukraine with a special emphasis on the traumatic experiences of our new fellow citizens was very helpful to better identify with the suffering of the newcomers.”

Marcin Maś
Head of Market Area Lean Manufacturing, Xella Poland

In 2022 we also employed 65 apprentices at Group level and offered opportunities for young talent such as our 'Junior Staff Days'. We also continue to partner with educational facilities such as Aachen University (Germany) providing support to students.

In 2022, we conducted in total 19 trainings in technical schools and universities in Poland, including four as part of our ongoing partnership with the postgraduate program at Krakow University of Technology. The largest training for students took place in our training center at the Silka plant in Itawa in July 2022. It was a practical and theoretical training on "BIM in multi-discipline cooperation" for 30 students of the University of Warmia and Mazury in Olsztyn. This training was prepared together with Evol Training Center. Students learned how to design in BIM, but also tried their assembling blocks using a mini crane on the construction site, as well as AR technology and our HoloLens.

Looking ahead, we want to continue to build a learning culture and achieve training goals and 2023 will also see our next formal employee survey held. We also want to continue to make our human resource processes, including onboarding, more employee centric.

Key data in this section has been independently audited.



PEOPLE

2.4

Diversity and inclusion

We believe a diverse workforce is a better workforce, giving us the variety of experience and thinking needed to run our company and fulfil our corporate mission. We encourage all types of diversity and have a particular focus on gender diversity with a corporate target for 25% of managers to be female by 2025.

Management approach

In recruitment we have a requirement for all vacant manager positions to include at least one woman on the short-list and we have undertaken unconscious bias training to ensure we write adverts in a neutral way that does not exclude women or minorities, in all major languages.

Our commitment to equal opportunity and respect for diversity is set down in our non-discrimination and diversity policy, as-well as in our Code of Conduct. This includes a commitment to equal pay for men and women doing comparable work, and regular reviews of our pay structure and recruitment approaches with diversity and inclusion in mind. Violations of policies are acted upon under each jurisdiction's labor law.

Performance in 2022

Our diversity target remains a challenging one, given the male dominated history of the construction materials sector. This is magnified in some regions - for example, levels of female employment tend to be lower in regions where schools and childcare finish in the early afternoon.

Yet we continue to progress versus our 2025 gender diversity target, with the proportion of female managers across the Group rising to 19.8% in 2022, including senior figures such as our Chief Sustainability Officer and Sales Manager in Germany.

Xella France is leading the way achieving an exceptional 91 out of 100 points on the "Index de l'égalité entre les femmes et les hommes" a national index to measure equal treatment between men and women.

Among other actions in 2022 we identified 13 women as potential future leaders. We are supporting this female talent pool with mentoring support from ExCom members, opportunities for extra training and development, and bringing them to our leaders' conference in Barcelona. They are part of the communication routine towards leaders to ensure they have the right level of information and develop their connections and visibility inside Xella.

Each plant is also encouraged to take on-the-ground action to support gender and other diversity and in Poland, for example, this led to the installation of female-only changing rooms and investments in more automation for heavy lifting work that previously tended to have excluded female workers.

In 2022 Xella also introduced an e-learning curriculum based on general aspects of Diversity, Equity and Inclusion assigned to more than 400 managers including the human resources team. This includes modules such as gender issues and ageism.



"I love different perspectives and backgrounds. It gives us the chance to learn so much from each other and to approach our challenges or possibilities with a broader view. Every person across the company can benefit from this diversity."

Wiedya Debipersad
Head of HR, Xella Northwest Europe



"The training made me realize why everyone works in their own different way, I now look at things very differently than before, I try to adapt communication more to individuals and sometimes give more time to analyze certain information... Such [diversity] trainings make us realize that there is a need to become aware of certain issues and to name them - which the specialists/trainers helped us with."

Dariusz Piwowarczyk
Regional Sales Director, Xella Poland

CASE STUDY

INVESTING IN FEMALE TALENT

One of the initiatives Xella has launched to develop, inspire, and promote future female leaders at the company is our female talent pool. This has meant giving 13 impressive female performers in our workforce access to special mentoring, training and events.

One member of the initiative, Aleksandra Kwapis, Head of Business Analytics for Xella, spoke ways it has helped her establish connections, share knowledge, and develop her career.

Aleksandra, who has worked at numerous departments at Xella since joining in 2007, said selection to the talent pool made her feel "honored, knowing that my impact and determination to learn was recognized by the company" and credited much of her success to her team.

She said the invite to join our international leadership meeting in Barcelona, for example, was invaluable. She worked with the Executive Committee and Xella leaders from other countries, exchanging ideas and

practices that she implemented in her career. The experience encouraged her to be open to new perspectives and viewpoints.

She stated Xella has always supported her as she grew into a leader, with the companies 'talent pool' being but one example. The company "supports an attitude of commitment throughout the business" she said.

Aleksandra acknowledged that the workplace can be demanding of women, particularly regarding juggling personal and professional commitments, but emphasised that women should never give up in trying to make an impact in their careers. As she transitioned from her previous roles in accounting and purchasing into business operations, she said, Xella's culture and commitment to promoting diversity had helped her grow to the leader she is today.





PEOPLE



CLIMATE



RESOURCES & CIRCULARITY

2.5

Working with suppliers

All suppliers that are part of Xella's regular purchasing process must uphold our Supplier Code of Conduct (SCoC), and comply with its commitments to safety, environmental protection, human working conditions and other responsible business activities. This also applies to their onwards supply chain. Violations are considered a material breach of contract and where necessary can lead to termination of contract.

Management approach

Where possible and appropriate we also try to favour suppliers local to our plants. This reduces transportation demands, and therefore emissions and helps support the local economy in our areas of operation. Approximately 80% of our materials are sourced locally²⁵ and, on average most important raw materials are sourced less than 80km from our plants²⁶.

Performance in 2022

In 2022 we achieved our target for 100% of our relevant suppliers (i.e. providers of essential material, where certain materials and/or certain country procurement costs are over €50,000) to comply with our Supplier Code of Conduct.

A focus of our year was also to prepare for Germany's new Supply Chain Due Diligence Act, which came into force in 2023 and affects Xella in 2024. We will meet the requirements of the law, by introducing a risk management system by the aid of a new software platform 'IntegrityNext' to help us identify, prevent, and address any human rights or environmental abuses in our supply chain. This work led us to perform a first abstract risk analysis based on country and industry risks of our entire supply chain at the end of 2022.

In 2023 we will continue to build the risk management system and define a process for supplier development in the field of ESG. The target is to have procedures in place to determine appropriate measures for affected suppliers to remedy any potential finding and to jointly become more sustainable through the entire supply chain.

We also recognize that our suppliers have an enormous role to play in helping us achieve our climate ambitions. Over 80% of Xella's carbon footprint come from our suppliers' emissions (i.e. 'Scope 3'), in particular producers of lime and cement, and in 2022 we completed a major piece of work to map these emissions and put in place a plan to reduce them. This is discussed in more detail in our Environmental chapter.

Now that we have the baseline data, we are working in partnership with our suppliers to support their emissions reductions plans. It is encouraging that several suppliers have, like Xella, also committed to science-based emissions reductions targets including suppliers of cement and lime responsible for a significant share of our cement and lime by value spent.



“We cannot achieve our vision alone, and are working ever closer with our suppliers on all aspects of sustainability including the challenge of creating a greener construction sector.”

Patrik Polakovič
Chief Procurement Officer
Xella Group

CASE STUDY

SUPPLY CHAIN ACTION ON CEMENT EMISSIONS

The production of cement involves heat of around 1,500°C and a chemical process that releases enormous levels of CO₂e. It is thought to produce up to 8% of the world's carbon dioxide emissions. Cement production also makes up around 30% of Xella's supply chain (scope 3) emissions.

At Xella we know therefore that working with our cement suppliers to green the sector is critical if we are to achieve our own climate ambitions.

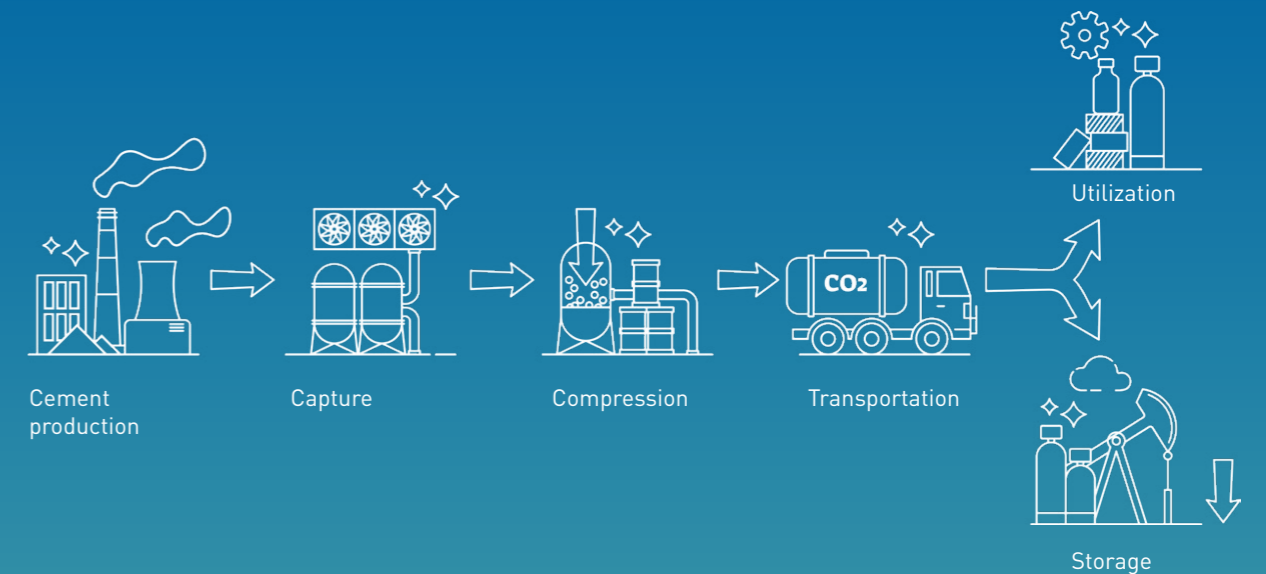
We have several suppliers who share our passion for more sustainable cement. In total seven²⁹ of our cement suppliers have, like Xella, committed to science-based targets and the sector is collectively exploring different ways to reduce the sectors carbon footprint.

One path is a circular economy one. Typically, over half of cement CO₂e emissions come from making clinker²⁰ and some innovative parts of the industry are exploring substituting clinker with steel blast-furnace slag and coal ash. It is estimated that this could replace 15-25% of clinker in Europe.

Some of our suppliers are also investing significant resources into Carbon Capture and Storage (CSS) to mitigate the impacts of emissions from cement production. One such project, run by Heidelberg Materials, in Brevik, Norway, will soon be able to capture 400,000 tonnes of CO₂e annually. In the future, the company intends to build a facility in Slite, Sweden, capable of capturing 1.8 million tonnes of CO₂e annually, making it the world's first carbon neutral cement plant.

The truth is there is no straightforward low-carbon replacement technology for cement products, and we want to work with our partners in the supply chain to encourage and embrace innovative solutions.

²⁰ <https://www.carbonbrief.org/qa-why-cement-emissions-matter-for-climate-change/>



3

Our environment





CLIMATE

3.1

Our approach to building a more sustainable world

With a mission to provide customers with efficient, affordable and sustainable building materials products and solutions to customers, environmental protection is at the heart of our business.

At Xella we are led by science. The past eight years in Europe were the warmest on record and we understand the urgent need for our business to adapt to climate change. That's why we invested more than €2.8 million last year in environmental improvements, from installing renewables to modernising boilers, and plan for a significant increase in 2023.

Our commitments and approach in this area are codified in our [environmental policy](#), which compels us to comply with all environmental regulations in our countries of operation. (See figure 10)

Our management and governance of the main elements of this is detailed in this chapter. Preparatory training is also given to all those required to collect data to inform our environmental management and reporting.

€2.8m

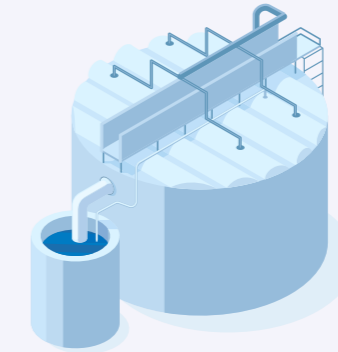
was invested last year in environmental improvements from installing renewables to modernising boilers, and we plan for a very significant increase in 2023 .



“Across Xella, our environmental strategy is in lockstep with our business strategy. Our investments to reduce emissions, re-use production residues, recycle waste and our determination to be responsible environmental stewards also help us seize market opportunities, reduce costs and attract the best talent.”

Cécile Fages
Chief Sustainability Officer, Xella

Figure 10
AS LAID OUT IN OUR ENVIRONMENTAL POLICY WE ARE COMMITTED TO:



1

Working continuously to improve our environmental stewardship, water management and sustainability.



2

Reducing our Group's emissions, waste and other environmental impacts.



3

Using innovative approaches and new technologies to move our company to a circular economy model.



3.2

Energy and emissions

At Xella, we understand the risks climate change poses to our business and supply chains. We also see it as an opportunity.

In picture
Installation of a new water tank at the Deva plant, Romania, for a heat recovery system.



Management approach

We provide building materials products and services that help to facilitate more sustainable construction, and we save costs by making our production processes less energy intensive. The urgency of the climate crisis was highlighted by world leaders at the COP27 international climate conference in 2022 and we are responding with steps to go further and faster in our climate action.

Perhaps the most significant of these is Xella joining the [Science Based Targets initiative](#) (SBTi) by committing to a near-term science-based emissions reduction target. We will keep working with the SBTi to ensure our emissions reductions plans are aligned with what climate scientists agree is a robust pathway to limit the global temperature rise to 1.5°C.

This goal builds on Xella's current target to reduce our Scopes 1 and 2 CO2e emissions intensity by 30% by 2030 compared with 2019. When we complete the process of setting up an SBT, we will also add an absolute reduction target for our Scope 3 emissions and also for Scope 1 and 2 emissions.

A key plan to achieving this target is our Group-wide energy-saving program. This includes finding ways to increase energy efficiency in our production process, installing renewable energy sources at plant level, the purchase of green electricity and replacing old, coal-fired boilers with new, lower-emitting boilers and coal a phase-out. The business case for these measures is increasingly compelling in the current climate of high energy and commodity prices.

With roughly 84% of our total carbon footprint coming from our Scope 3 emissions, i.e., upstream emissions from purchased goods and services such as lime, cement and transport, we are also committed to working with our suppliers to find ways for them to reduce their emissions in the years ahead.



30%

We will build on on Xella's current target to reduce our Scopes 1 and 2 CO2e emissions intensity by 30% by 2030 (compared with 2019)



“Despite turbulent times and volatile energy markets, we continue to make step-by-step progress in our emissions reduction plans. Committing to a science-based target this year is a major milestone that shows we have the willingness and the ambition to take a leadership role in the challenge of greening the construction sector.”

Thomas Nowakowski
Head of Group Energy Management, Xella

Key data in this section has been independently audited.

Responsibility for the strategic direction and compliance with energy management targets lies directly with Xella ExCom members and is overseen by the Head of Group Energy Management. It is carried out in conjunction with colleagues across the business, notably the Chief Technology Officer. Implementation responsibility also cascades through Xella's national teams and at plant level.

Performance in 2022

The raw data tells us that our location-based, Scopes 1 and 2 emissions fell by 10.4% during 2022, or 50,000 tonnes, on the BM scope²¹.

However, it is important to understand the context for this year's numbers, as they took place against the backdrop of the war in Ukraine and its global effects, with consequences all over the world, with uncertainty of energy supply and unprecedented natural gas prices. Supporting the EU energy-saving targets, some plants able to switch fuel were temporarily operated by fuel oil to ensure ensure that we could continue to operate and serve our customers' needs.

The negative impact of this decision on CO2e emissions has been very limited. The main reasons for the CO2e emissions decrease are:

- the deployment of our energy efficiency actions;
- the maintenance period at our lime plant in Romania, during which it did not produce as usual;
- a slight decrease of gross production of CSU in 2022;
- and the updated CO2e emissions factors used for power, which are becoming lower as a result of the development of renewable energy in Europe.

Market-based emissions (402,236 tonnes CO2e in 2022) have decreased by 8% vs 2021. Market-based scope 2 emissions have increased in 2022 vs 2021 (+14%) because we purchased a lower quantity of guarantees of origin in 2022 (equivalent to -25 kt CO2e). We are still aligned with our current

commitment to reduce our CO2e emissions intensity (scope 1 and 2) by 30% by 2030 vs 2019. Current status is a reduction of this CO2e intensity by -6.7% in 2022 vs 2019 (Building Materials scope).

The international political environment has had the long-term effect of accelerating our efforts to be less dependent on one energy source and fast-tracked even greater investment in renewables and energy savings. We also made the decision to transfer production from plants such as Powodowo and Pasyrn in Poland, which relied on old coal boilers, to more modern, energy-efficient sites.

We were delighted in December 2022 to publicly join the SBTi by committing to a near-term, science-based emissions reduction target. We are confident that this sends a clear signal to all our stakeholders that the success of our business is aligned with the transition to a low-carbon economy.

Another significant milestone in 2022 was to complete the assessment of our Scope 3 emissions, explored on the next page and in the [Appendix](#). In 2023, we will also undertake a climate risk mapping exercise to further understand and manage our exposure in this area.

²¹ BM = Building Materials (new scope of Xella Group; last year it was BM + Ursula which has been sold to another company)



CLIMATE

3.2 ENERGY AND EMISSIONS

Performance 2022 continued

Measuring and managing our supply chain's emissions

At Xella, we know we cannot achieve our vision of building a more sustainable world alone. And the extent to which we must encourage action from our suppliers—such as cement and lime producers—was apparent by our assessment of our Scope 3 emissions in 2022.

The assessment, carried out with external specialists at thinkstep-anz, showed that Xella's carbon footprint is dominated by Scope 3 emissions, which accounted for 84% of our total emissions in 2022. Raw materials that are carbon-intensive to produce, such as cement and lime, contribute a huge chunk of these emissions (67%). Transport and distribution are also a significant contributor.

It is clear from our assessment that we need to work closely with suppliers to reduce emissions from raw materials and gain a better understanding of the climate impact of different sources of transport. In 2023, we will focus on agreeing targets and initiatives to decrease Scope 3 emissions and ensure that we can measure them with higher levels of precision by getting specific emissions factors from our suppliers.

We are already engaged with many of our suppliers on this challenge. Several major suppliers have also committed to science-based targets. We are engaging with all our key suppliers of lime and cement, who are responding to our pressure by looking at decarbonization opportunities, such as carbon capture and storage, and developing more precise plans to make it happen.

84%

Xella's global carbon footprint is dominated by Scope 3 emissions, which accounted for over 84% of our total emissions in 2022.

Saving energy

The most important rule on reducing energy consumption, saving money and emitting less CO2e into the atmosphere is stopping wasted energy. That's why a main feature of our efforts is the installation of energy-efficiency measures at our plants, such as optimizing start-stop management for machines and insulating pipes, valves and other hot surfaces, such as autoclave door rings, regular detection and repair of compressed air leakages, replacing machines with more energy-efficient ones and installing LED lighting.

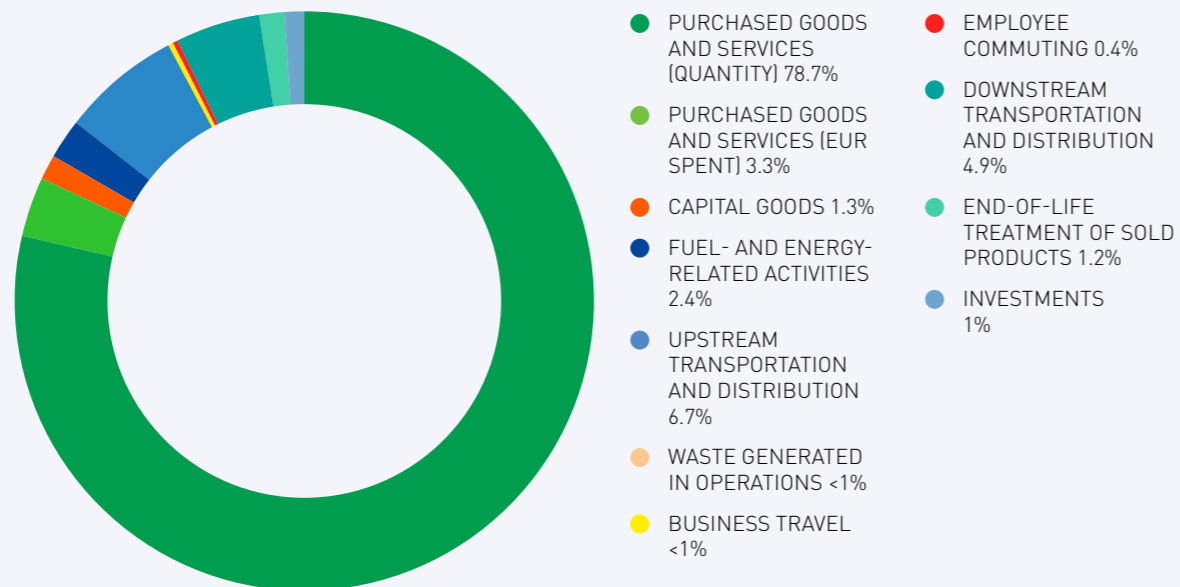
The budget on our CO2e-roadmap was set to €4.6 million to fund a variety of energy-saving projects in 2021 and 2022. These projects have generated an EBITDA impact of €2.8 million a year and a reduction in CO2e emissions of 14,200 tonnes annually. In 2022, energy-efficiency projects reduced our CO2e emissions by 6,500 tonnes, with measures such as insulation of equipment, optimization of steam usage, and switching coal to gas.

We have identified the replacement of boilers as a pivotal way to reduce energy use, as steam generation, which we need in our process, is the biggest consumer of energy in our plants. In 2022, we carried out an 'Open Tec Scan', meaning all technologies were treated equally with no bias, – to examine which different technologies meet our requirement and can produce more sustainable steam than the boilers operating with coal and gas that Xella is using. The scan revealed that the best option, environmentally and economically is to replace boilers running on coal to highly efficient natural gas boilers that are future-ready and designed to use hydrogen or electric coils. This exchange will result in a 50% reduction in carbon dioxide emissions, resulting from higher efficiency from new state-of-the-art boilers and lower specific CO2e factors.

€4.6m

The budget for our CO2e roadmap was €4.6 million to fund a variety of energy-saving projects in 2021 and 2022.

Figure 11
SNAPSHOT OF CONTRIBUTORS TO TOTAL SCOPE 3 EMISSIONS (2022 DATA)



In picture

Simple actions, such as insulating pipes, valves and other hot surfaces, also improve energy conservation.



Key data in this section has been independently audited. This excludes Figure 11.

CASE STUDY 

HEAT RECOVERY IN DEVA, ROMANIA

The town of Deva is located south of the Transylvanian Ore Mountains in southern Romania. Here, one of Xella's largest plants produces around 400,000m³ of AAC annually in a round-the-clock operation. As part of a routine assessment, Xella's energy team, in collaboration with on-site staff, found it was possible to significantly reduce CO₂e emissions by optimizing the plant's heat recovery system.

AAC is made from sand, quicklime, cement and water, which are brought together and hardened in autoclaves (sealable pressure vessels) for between eight and 12 hours at around 190°C.

The process heat is carried away with the product and until now has been partially lost to the environment. However, with the help of an optimized heat recovery system, the waste of energy will be minimized by using the heat from condensate from a shutdown autoclave to preheat the water for steam production. Indeed, we estimate the system will lead to savings of more than 1,000 tonnes of CO₂e a year, equivalent to almost 6,000 MWh of electricity or saving more than 3,500 barrels of oil.

In 2023, Xella plans to install heat recovery systems in our plant in Vuren in the Netherlands.



CLIMATE

3.2 ENERGY AND EMISSIONS

Performance 2022 continued

Solar power

We also continued increasing our capacity for renewable energy generation at our production sites in 2022. The value of the projects is around €7 million across 2022 and 2023.

This included solar panels on the roof of the one of the largest calcium silicate block plants in Europe: the Hazelaar plant in the Netherlands, which employs 150 people. Hazelaar now has 800 solar panels in use on the sawmill building, generating a production of 380,000 kWh/year, enough to provide around 6% of the plant's total electricity consumption.

It is planned to install photovoltaic panels at several production sites, including Vuren (the Netherlands), Kolubara (Serbia) and others in 2023. The project in Kolubara will cover around 40% of site power demand, with a capacity of 1 MW. At our plant in Atella in Italy, photovoltaic panels provide up to 15% of the plant's required electricity.

Other ways we reduced emissions in 2022 included:

- **Greener logistics:** To reduce transport emissions, in Belgium we piloted an increase in products transported via water instead of by road. In 2022, this figure almost doubled to 8500 m³ compared to 4700 m³ the previous year. Our work to reduce production residues, cut-offs and waste ([page 38](#)) also means less transportation of leftovers.
- **Electrifying our forklifts:** In 2022 in the Netherlands, France and Belgium, we started to transition our forklift truck fleet away from fossil fuel vehicles towards electric vehicles. In the Netherlands and Belgium, electric forklift trucks made up 17% of the total fleet in 2022 and this figure will grow to 31% in 2023. In France, 35% of the forklift truck fleet was electric in 2022. In total, 230,000 liters of diesel were saved by introducing electric forklift trucks.
- **Alternative products:** In true Xella style, we have also taken to the laboratory to investigate the possibility of developing high-quality building materials that do not require high-emitting inputs such as cement or lime. For example, T&F, working with colleagues in India, is looking at low-CO₂e alternatives, such as using bamboo as a raw material for blocks. This is still very much in the concept stage of development.

In picture

Inspection of the new photovoltaic system on the roof of our Dutch plant in Koningsbosch.



🔗 Key data in this section has been independently audited. This excludes the case study on heat recovery in Deva, Romania.

CASE STUDY

TURNING BUILDINGS INTO CARBON SINKS

Could we one day create a building that absorbs more carbon dioxide than it produces?

One of the most significant potential breakthroughs in 2022 was the conclusion of scientific research on the extent to which large amounts of CO₂ can be stored by our autoclaved aerated concrete (AAC), and potentially other products during the lifetime of a building.

This is research our T&F center has led for several years, and in 2022, the German issuers of Environmental Product Declaration (EPD) certificates accepted the finding that during the life of buildings made with AAC, the natural process of recarbonation means a significant part of the CO₂ released during production is reabsorbed and permanently embedded as a carbonate phase in the mineral structure of the AAC.

We estimate that in Germany, around 76kg/m³ of GHG is sucked out of the air in the lifetime of a typical AAC building, and up to 90kg/m³ for a typical calcium silicate building. The scientific

investigations are very much ongoing, but it is encouraging that EPDs in Germany now include this factor when they rate the carbon footprints of buildings. This mechanism of recarbonation is already acknowledged in Italy too.

Science also shows the CO₂ is permanently trapped, so even after demolition, it is not released, which is not the case with timber waste, which tends to be burned.

Led by our T&F research center, we continue to investigate the best ways for our buildings to act as carbon sinks, including working with EPD issuers across Europe.

76kg/m³

of of GHG is sucked out of the air in the lifetime of a typical AAC building, and up to 90kg/m³ for a typical calcium silicate building.





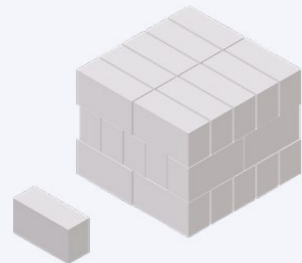
3.3

Waste and resources management

One of Xella's most ambitious sustainability goals is to develop a circular economy for our products. The more we can reuse and recycle production residues, cuts-off and waste the more we protect both the earth's natural resources and our bottom-line returns.

We work to avoid or use production residues in our processes across all our units and have a corporate KPI for zero AAC and CSU to be sent to landfill by 2025 and 2030 respectively.

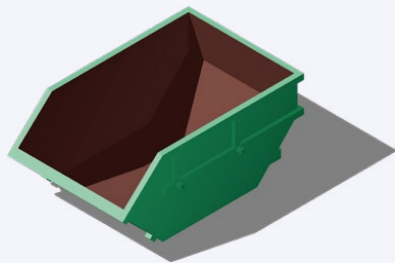
Achieving these goals is an on-going process that requires collaboration with others. Our initiatives to implement our policy, explored in detail in this section, include:



A. Reuse of materials back into the production process



B. Working with customers to recover leftovers



C. Measures to cut waste and residues



D. Finding alternative uses



“We no longer look at demolished buildings as waste, we see them as a source of raw materials for the future. We think outside the box to see how far we can go to increase recycling and re-use. In every product line we are exploring the science behind making more with less, without any compromise on quality.”

Pierre Helvig
CEO and CTO Xella France,
Head of Circular Economy, Xella

Responsibility for reducing waste and coarse materials rests with our Head of Circular Economy Pierre Helvig supported by a Circular Economy Development Manager who sits within the ESG team, overseen by our Chief Sustainability Officer. Xella's T&F center also plays a vital role as a place to test the technical properties of any cuts-off from production or construction sites, or waste processed according to our requirements from recycling companies, in the recipes of our products.

Since Xella products consist mainly of mineral raw materials, we do not generate any relevant quantities of hazardous waste or effluents during production. Nonetheless hazardous waste and effluents management is a requirement of the operation permit of all plants, and we comply with local laws and regulations in this area.

Performance in 2022

Globally, we used 4% less input materials in 2022 vs 2021 for a production level stable for AAC and slightly lower for CSU. Lime consumption decreased because CSU production slightly decreased; our sand consumption decreased because we are using +10% AAC powder (crushed materials coming from production leftovers or sort-clean cut-offs from construction sites) in 2022 vs 2021 in our recipes, highlighting the first success of our action plan; and we have increased our product-mix to lower weight products suitable for monolithic construction.

A key activity in 2022 has been to increase the focus on leftovers and waste materials in the plant and ensure we have a more precise view of volumes sent to landfill. This has driven us to update 2021 waste data as the first data collection did not accurately reflect the reality of our plants. This increased focus has helped us track waste more precisely (and consequently waste volumes have increased by 20% in 2022 vs 2021) and revealed that volumes sent to landfill increased in 2022, however it also gives us the tools to find the right solutions for each region in 2023 and beyond.

Volumes landfilled for 2022 have increased by 2 points for AAC, and 9 points for CSU in comparison to 2021. This increase is due to more diligent internal categorization of waste, tighter company regulations on disposal of leftovers to third party companies, and impact of unstable situation of supply chain for raw materials.

Globally, we made progress in all four areas of waste management:

A. Use of materials back into the production process

We are focused on optimizing our product recipes and increasing the content of crushed coarse materials or reused or recycled materials in our products. Each plant has its own laboratory to experiment with different formulations of its local sand, lime, water and other ingredients, and our T&F research center is responsible for testing any new formulations to ensure they meet the robust quality required by our customers.

In 2022, we began running tests in our Freistett plant in Germany. This was then handed to the T&F center which is now testing to see if we can replace 17.5% of raw materials with crushed AAC leftovers in plants across Germany. Our near-term ambition is to raise this to 20% in the months and years ahead. But is not only about the reuse of production or construction site leftovers. We must also prepare for the recycling of AAC from construction & demolition (C&D) waste, which we are working on with C&D waste recycling companies and partners from fundamental research, e.g. Otto Dörner Entsorgung and the Karlsruhe Institute of Technology. In the Koningsbosch plant in the Netherlands we started to reuse 100% of CSU leftovers.

In parallel to the tests in Freistett, several other AAC plants started to work on their recipes to ensure increased content of recycled AAC.

In 2023, we would also want to focus on delivering increased availability of AAC recycled materials or crushed AAC leftovers for our plants and start to deploy investments all around Europe in order to reach our ambitious targets.



3.3 WASTE AND RESOURCES MANAGEMENT

Performance 2022 continued

B. Working with customers to recover leftovers

To reintroduce a higher proportion of reprocessed, reused or recycled materials into our production process, we need a steadily larger supply of recycled waste material from demolition or coarse materials from production. This is not something we can secure on our own as demolition can happen anywhere across Europe.

Thus, we are actively encouraging customers, local authorities and other agencies to return materials to Xella rather than send it to landfill. Initiatives which Xella runs to help meet this challenge include our "big bags" collection of sorted clean AAC cut-offs from the construction of the customers. We currently offer the big bags concept in several countries, including Germany, where in 2022 we collected 4,900 big bags, so approximately 1,500 tonnes of AAC offcuts.

We also operate returns services for pallets and packaging in some countries. Our 'Return the pallet to save the planet' service is in operation in Poland, Serbia and France, and the latter saw 67% of wooden pallets reused based on 2021 data.

C. Measures to cut waste and residues

We want to reduce, as-well as reuse and recycle waste.

We want construction waste to be reduced as well as recycled. One of the most significant ways to achieve it is to encourage clients to use our digital solutions. In 2022 for example, as discussed in more detail earlier in this report, Xella's blue.sprint team worked on 1,750 building projects in Europe last year, reducing material use by around 4%. This is approximately 14,000m³ less waste – helping us avoid 930 deliveries and 32,000 km travelled.

Where possible we also look to introduce new machinery to optimize our production residues and waste management performance. The introduction of a crusher at our plant in Saint-Savin in the south of France in mid-January 2022, for example, has reduced the flow of leftovers so that over half of the leftovers are now used to produce ACC, with the crushed powder replacing sand. This has reduced the use of sand by 10% in 2022, avoiding around 640 tonnes of CO₂e. Further investments in crushers are investigated to maximize re-use of powder.

We are also working to reduce the number of wooden pallets that need disposing of. In France we re-used over 118,636 pallets in 2022, and in the Netherlands the team is working on the phase-out of VHP (vloer hoog pannel, Ytong floor high panels) wooden pallets for more robust plastic pallets – made from 100% recycled plastic – that can typically be used 10-15 times over, rather than the 3-4 times used by a typical wooden pallet. The Netherlands team will replace 100,000 VHP pallets in this way in 2023.

The Dutch team also changed the foil packaging and is using transparent foils with only 10% print instead of full printed foils. This makes the foil easier to recycle, because it contains less ink and has a higher usability.

D. Finding alternative uses

We wouldn't be Xella if we didn't also challenge ourselves to think of innovative solutions when it comes to a circular economy – including finding alternative uses for leftovers of production.

For over a decade we have developed new application of reprocessing AAC residues in the form of granulates, among others through Silikalzit. – the commercial organisation selling Xella granulates.

In 2022, Xella started to work on products in France that use the granulates from crushed production

residues or cut-offs to filter wastewater from houses and for green roofs/ surfaces where light materials are needed. The granulates can reduce the soil needed for green roofs by 25%. In 2022, these products were made in our plant in Saint Saulve in northern France; by the end of 2023 we plan to produce them in Saint-Savin in southern France to reduce transport emissions.

In 2022, we also started work on the creation of new products using these granulates for levelling floors and thermal insulation and for other purposes, as reducing use of cement.

25%

The granulates can reduce the soil needed for green roofs by 25%



In picture
Granulates made from autoclaved aerated concrete leftovers.



"Circularity is one of the core values of Xella. It is at the heart of our ambitious plans to reduce emissions and achieve net zero."

Antonio Grginović
Circular Economy Development Manager, Xella

In picture
AAC residues or AAC recycled waste become granulates for leveling floors and thermal insulation in buildings.



CASE STUDY 

USING RECYCLED AAC IN SCHROBENHAUSEN

In southern Germany we are conducting a pilot-study with a C&D waste operator to see how much material rescued from the demolition of an old AAC building can be reused in new AAC.

The study has seen the controlled demolition of a 1960s factory building made of reinforced AAC wall elements with the salvaged AAC brought to our plant in Schrobenhausen. The operator

collects, sorts and crushes the old AAC according to our requirements and then the material is quality checked at Xella's T&F center.

In the Schrobenhausen Ytong factory the sort-clean processed AAC powder is then supplied into the production of new AAC. The study is underway but is based on the assumption that it could create 0.5 kg CO2e savings for each 1 kg of AAC saved²².

4,500 tonnes

The study is underway but is based on the assumption that it could create 0.5 tonnes CO2e savings for each ton of AAC-waste reused in AAC production. With this measure, up to 4,500 tonnes of raw material-related CO2e emissions could be avoided at the Schrobenhausen site alone.

²²Rebekka Volk, Justus J. Steins, Oliver Kreft and Frank Schultmann, Life cycle assessment of post-demolition autoclaved aerated concrete (AAC) recycling options, Resources, Conservation & Recycling 188 (2023) 106716



CASE STUDY 

REPLACING 10% OF SAND WITH CRUSHED LEFTOVERS IN THE SOUTH OF FRANCE

At Xella's Saint-Savin plant, located between Lyon and the Alps, 32 employees work in three shifts to produce around 540 m³ of AAC a day. In recent years, the plant invested an initial €180,000 in equipment for recovering, screening and transporting AAC leftover powder to the concrete mixing plant, reducing the amount of sand required to produce AAC by 4%.

More recently, the plant invested an additional €1.1 million to further optimize leftovers use and install a crusher just outside the site. This move creates a more circular product, conserves natural resources and will save Xella more than €460,000 a year.

The new crusher has reduced the use of sand by 10% in 2022, avoiding around 640 tonnes of CO2e and extending the life of the sand pit.

Today, all the AAC produced at the plant is used and powder from leftovers now replaces up to 15% of the sand used in production instead of just 4%.

640t

The new crusher has reduced the use of sand by 10% in 2022, avoiding around 640 tonnes of CO2e and extending the life of the sand pit.



3.4

Water management

We recognize that water is a precious resource and access to it is a fundamental human right.

Management approach

Given that the construction industry is using significant quantities of water, at Xella we are committed to the responsible use of water as captured in our [Water Policy](#).

Our production process requires water for steam production, in the recipe and for cooling purposes. We obtain fresh water from our own wells, lakes, and public water systems. Our aim is to reduce the consumption of freshwater – especially in areas of high-water scarcity to minimize impact on environment. We continuously improve processes and technology to reduce water waste and losses and improve water re-usage.

As shown in “Plants in areas of water stress”, we have identified six plants that are located in areas of water stress.

Plants in areas of water stress³⁵

| | | | |
|---|------------|-------------|------------|
| 1 | Mios | France | BM AAC |
| 2 | Atella | Italy | BM AAC |
| 3 | Ploiesti | Romania | BM AAC |
| 4 | Herwaarden | Netherlands | BM CSU |
| 5 | Hoogdonk | Netherlands | BM CSU |
| 6 | Targu Jiu | Romania | Lime Plant |

Performance in 2022

In 2022, water withdrawal has decreased by 4% vs 2021. Some boilers have been changed in 2022, which contributed to save a significant amount of water.

All plants in areas of water stress have water meters installed to ensure accurate measurement of water use. In 2022 we piloted the use of EnEffCo – a leading software solution for energy management that can also be applied to water management – in two plants in Germany. We are also looking at good practices in plants such as Schönbach (see box) and aim to share learnings widely across our network.

We recognize there is still work to be done in this area with several plants (19% of our plants) still using an estimate-based system to measure and manage water consumption. To understand water flows better, we want to create water-KPIs and have a baseline we can improve. To define this target, we have committed to begin installing smart water meters and integrate them to a companywide system in 2023.

CASE STUDY

CREATING A CLOSED LOOP FOR WATER IN EAST GERMANY

Our plant in Schönbach in Eastern Germany is a significant producer of Calcium Silicate Units (CSU) such as our Silka branded products – and is currently re-using 100% of its autoclave condensate.

The CSU production process creates a large surplus of wastewater, primarily from the curing process (autoclaving) as this requires large amounts of saturated steam. During autoclaving, approximately 120 liters/m³ of CSU of steam condensate is produced. During this process the steam condensate comes into contact with materials containing substances that could damage the steam boiler if the condensate were reused in steam generation. Most of the condensate is, therefore, discarded as wastewater.

With the right systems in place, however, it is possible to reuse 100% of the autoclave condensate in the production process. This is happening at Xella’s Schönbach plant.

Here the factory has installed equipment to remove solid particles by a sand filter, carbonate hardness and reduce the pH value of the water by a decarbonization filter and a softening filter to remove non-carbonate hardness. The water quality is continuously monitored. Together, this means that the condensate can be also reused for steam generation.

Xella’s energy management department is currently examining whether similar systems could be installed and used in other CSU plants.



35 WWF Water Risk Filter, 08. February 2023.

4

Looking ahead



4

Looking ahead

We have a long-term ESG strategy and roadmap and will continue to progress this diligently in 2023 to meet our targets and achieve our ESG ambitions.

Some of the key milestones and moments of progress that we hope to achieve in 2023 include:

- Working with the Science-based Targets Initiative to set an SBT for Xella, that aligns our business with a path to Net Zero by 2050
 - Continued engagement with our highest-emitting suppliers to encourage them to reduce emissions in line with what climate science says is required to keep global warming to well below 2°C
 - The linking of executive remuneration with ESG KPIs such as our target for direct emissions reductions, affecting our 68 top executives
 - Increased investment in energy saving measures such as the heat recovery systems in our plant in Vuren and continuing the installation of photovoltaic panels
- Continued investment and progress in our circular economy efforts with a focus on both including more re-used leftovers in our recipes and investing in new machinery such as crushers to reduce operational waste
 - Working to ensure an increased number of plants across our network are progressively installing smart water meters to measure water withdrawal

With a clear focus on our mission to provide efficient, affordable, and sustainable building materials products and solutions to customers we look forward to collaborating with all our stakeholders on the journey to a net zero future and the challenges ahead.



5

Appendix



5.1

Scope 3 emissions methodology

This methodology was produced in conjunction with thinkstep-anz, and relates to Scope 3 emissions inventories for the calendar years 2019, 2021 and 2022, to supplement the existing GHG data on Scope 1 and 2.

Scope 3 covers emissions from activities in Xella's value chain, both upstream and downstream from Xella's own operations (termed 'indirect emissions').

The development of the Scope 3 inventory was based on international greenhouse gas accounting and reporting standards, specifically ISO 14064-1:2018 and the relevant Greenhouse Gas Protocol documents. The GHG Protocol identifies 15 different categories of activities within Scope 3.

An initial screening exercise identified the categories within Xella's value chain which were considered applicable and material to the emissions inventory. A threshold of 1% of overall Scope 3 emissions was used to establish the materiality of each category. Ten categories were identified as applicable, with six defined as material¹.

For each applicable category, relevant data were collected, and appropriate emission factors were identified. Each emission factor converts a specific unit of activity into an emissions value. Emissions generated during raw material extraction and production, and the transport of goods were the predominant source of emissions. For these emission estimates, the average-data² method was used for raw materials, and the distance-based³ method was used for the transport of goods, using quantity data from suppliers. The spend-based method⁴ was used where only financial data was available.

For the raw materials (79% of Scope 3 emissions), specific emission factors were available for cement and sand, with industry-level factors used for the rest⁵.

For the transport of goods (12% of Scope 3 emissions), government-sourced emission factors based on mass (weight) and distance were used.

Sources

- Greenhouse Gas Protocol: Technical Guidance for Calculating Scope 3 Emissions (Version 1.0) - Scope 3 Calculation Guidance | Greenhouse Gas Protocol (ghgprotocol.org)
- The EORA Global Supply Chain Database - Eora Global MRIO (worldmrrio.com)
- Product Sustainability (GaBi) database - Product Sustainability (GaBi) Data Search | Sphera
- Greenhouse gas reporting: conversion factors 2021 - Greenhouse gas reporting: conversion factors 2021 - GOV.UK (www.gov.uk)

1 For 2021, the material categories were 1 (Purchased goods and services), 2 (Capital goods), 3 (Fuel and energy-related activities), 4 (Upstream transport and distribution), 9 (Downstream transport and distribution), and 12 (End-of-life treatment of sold products). The other applicable, but not material, categories (i.e., less than 1% of Scope 3 emissions) were 5 (Waste generated in operations), 6 (Business travel), 7 (Employee commuting), and 15 (Investments).

2 The average-data method "estimates emissions for goods and services by collecting data on the mass (e.g., kilograms or pounds), or other relevant units of goods or services purchased and multiplying by the relevant secondary (e.g., industry average) emission factors (e.g., average emissions per unit of good or service)." (Greenhouse Gas Protocol - WBCSD, WRI & Carbon Trust, 2013).

3 The distance-based method estimates emissions for the transport of goods by "determining the mass, distance, and mode of each shipment, then applying the appropriate mass-distance emission factor for the vehicle used." (Greenhouse Gas Protocol - WBCSD, WRI & Carbon Trust, 2013).

4 The spend-based method "estimates emissions for goods and services by collecting data on the economic value of goods and services purchased and multiplying it by relevant secondary emission factors." (Greenhouse Gas Protocol - WBCSD, WRI & Carbon Trust, 2013). thinkstep-anz used emission factors from the EORA database, based on environmentally extended input-output (EEIO) tables.

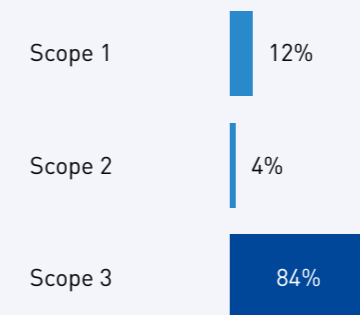
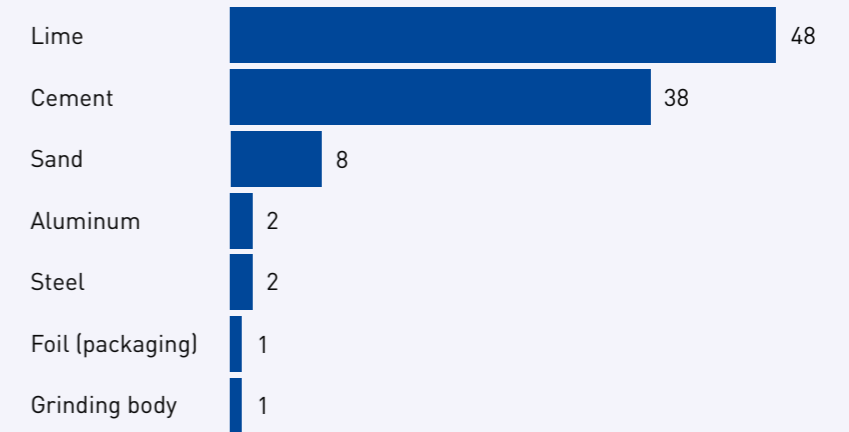
5 Emission factors for the main raw materials were sourced from Sphera's GaBi Database (Sphera, 2021).

6 Emission factors for the transport of goods were sourced from the Department for Business, Energy & Industrial Strategy (BEIS, 2021).

7 Xella plants used over 700,000 tonnes of lime in 2022, in the production of its cement-based products. Each tonne of lime is associated with 1.2 tonnes of carbon emissions (CO2e). These emissions result mainly from fuel combustion and the chemical process involved in lime manufacture. The conversion (or emissions) factor was sourced from the Sphera Product Sustainability (GaBi) Database.

Figure 12
SPLIT OF CO2e EMISSIONS FOR BUILDING MATERIALS BUSINESS BY SCOPE
→

In total 79% of scope 3 emissions come from our raw materials and packaging and the breakdown of emissions within this category is



RAW MATERIALS

~1.7m tonnes CO2e of which

- Lime 830kt CO2e
- Cement 650kt CO2e

TOTAL SCOPE 3 EMISSIONS

~2.2m tonnes CO2e

8 Xella plants used around 790,000 tonnes of cement in 2022 in the manufacture of its products. Each tonne of cement is associated with approximately 0.84 tonnes of carbon emissions (CO2e). These emissions result mainly from fuel combustion and the chemical process involved in cement manufacture. Most of the Xella sites, covering 70% of the cement emissions, used a country-specific conversion (or emissions) factor, developed from available process data. The remaining sites used a conservative emission factor based on available emission factors.

9 The emissions from the manufacture of lime and cement contribute two-thirds (67%) of the overall Scope 3 emissions. The other significant contributors are emissions from sand production (6%), the transport of raw materials to Xella sites and the transport of products from Xella sites to

customers (collectively 12%).

10 The emissions estimates were based on the appropriate standards-based methodologies (from the GHG Protocol), using recognised emission factors. The average-data method was used for raw materials, and the distance-based method was used for the transport of goods, using quantity data from suppliers and other inputs. The spend-based method was used where only financial data were available. Overall, for raw materials and other goods and services, 95% of emissions were calculated using the average-data method, with the remaining 5% calculated using the spend-based method.

11 For several countries, country-specific emission factors were not available for the manufacture of a range of materials (including aluminium powder, lime, LDPE, lubricants, steel sheet parts and

gypsum). For these countries, German-specific emission factors were used. The countries are Austria, Bosnia, Belgium, Bulgaria, the Czech Republic, France, Hungary, Italy, Netherlands, Poland, Romania, Serbia, Russia, Slovenia, and Slovakia.

Key data in this section has been independently audited.

5.2

KEY FIGURES AT A GLANCE

Following the announcement of the sale of the URSA business, we have updated our core ESG KPIs for 2019 - 2022, based only on the Building Materials part of Xella business. The GRI Disclosures marked with a check mark ✓ have been subjected to a limited assurance by the auditing firm PricewaterhouseCoopers.

| Key Figures | Unit | 2022 | 2021 | 2020 | 2019 |
|---|--------|---------|---------|---------|---------|
| ECONOMIC | | | | | |
| Total revenue | € mn | 1,369.6 | 1,171.1 | 1,072.4 | 1,109.1 |
| Normalized EBITDA | € mn | 291.3 | 256.9 | 242.8 | 226.4 |
| Normalized EBITDA margin | % | 21.3 | 21.9 | 22.6 | 20.4 |
| Plants ¹ | number | 75 | 79 | 82 | 82 |
| National subsidiaries | number | 22 | 22 | 22 | 22 |
| Total investments in R&D | € mn | 3.9 | 3.9 | 3.5 | 4.3 |
| of which climate- and sustainability related R&D | % | 75 | 60 | 63 | 51 |
| Share of sales with sustainable products ² | % | 58 | 57 | 56 | 54 |

| Key Figures | Unit | 2022 | 2021 ³ | 2020 | 2019 |
|---|-----------|------|-------------------|------|------|
| INPUT MATERIALS | | | | | |
| Total input materials used for production | mn tonnes | 8.22 | 8.56 | 8.00 | 8.97 |
| Sand | mn tonnes | 6.28 | 6.54 | 6.10 | 6.89 |
| Lime | mn tonnes | 0.72 | 0.75 | 0.72 | 0.78 |
| Cement | mn tonnes | 0.79 | 0.78 | 0.71 | 0.77 |
| Other input material | mn tonnes | 0.44 | 0.49 | 0.47 | 0.52 |
| Share of recycled materials ⁴ | % | 1 | 1 | 1 | 1 |

¹ Number of plants includes all plants being active during the reporting year.

² Sustainable products are defined as product lines or services that are designed to have positive effects on the environment or that are labelled and marketed as environmentally friendly. The focus here is on products and services that have positive environmental effects.

³ Figures for 2021 have been adjusted to reflect updated data.

⁴ Excl. cuts-off, production residues and leftovers from production which are directly returned and reused as inflow to production.

| Key Figures | Unit | 2022 | 2021 | 2020 | 2019 |
|--|--------------------|-------------|-------------|-------------|-----------|
| ENERGY | | | | | |
| Total energy consumption | GJ | 6,067,174 ✓ | 6,457,638 ✓ | 5,994,828 ✓ | 6,511,166 |
| Fuel, renewable | GJ | 1,320 | 1,509 | 1,037 | 1,022 |
| Fuel, non-renewable | GJ | 4,845,008 | 5,231,544 | 4,856,346 | 5,186,281 |
| CO₂e EMISSIONS¹ | | | | | |
| Total (Scope 1 and 2) [market based] | tCO ₂ e | 402,236 ✓ | 437,241 ✓ | 410,543 ✓ | 483,006 |
| Total (Scope 1 and 2) [location based] | tCO ₂ e | 429,283 | 479,143 | 441,124 | 483,317 |
| Scope 1 | tCO ₂ e | 302,485 ✓ | 349,687 ✓ | 321,019 ✓ | 345,289 |
| Scope 2 [market based] | tCO ₂ e | 99,751 ✓ | 87,554 ✓ | 89,524 ✓ | 137,717 |
| Scope 2 [location based] | tCO ₂ e | 126,798 | 129,456 | 120,105 | 138,028 |
| Use of Biomass ² | tCO ₂ e | 135 | 152 | 105 | 103 |
| Scope 3 ³ | tCO ₂ e | 2,199,306 ✓ | 2,239,578 | - | 2,209,709 |

CO₂e INTENSITY PER MAIN PRODUCT CATEGORY (SCOPE 1 AND 2)

| | | | | | |
|--|-------------------------------------|---------|---------|---------|-------|
| Autoclaved aerated concrete [AAC] | kg CO ₂ e/m ³ | 30.55 ✓ | 30.77 ✓ | 31.43 ✓ | 33.99 |
| Calcium silicate units [CSU] | kg CO ₂ e/m ³ | 43.97 ✓ | 40.89 ✓ | 41.22 ✓ | 45.96 |
| Multipor | kg CO ₂ e/m ³ | 42.35 ✓ | 30.79 ✓ | 40.29 ✓ | 56.74 |
| Reduction of CO ₂ e intensity vs. 2019 [baseline] | % | -6.7 ✓ | -8.6 ✓ | -7.4 ✓ | - |

¹ Unit has changed from CO₂ to CO₂e.

² Emissions are reported separately from Scope 1 and Scope 2 in accordance with the Greenhouse Gas Protocol.

³ see pg. 45 for details on Scope 3 calculation and methodology.

| Key Figures | Unit | 2022 | 2021 | 2020 ¹ | 2019 ¹ |
|--|---------------|---------|---------|-------------------|-------------------|
| TOTAL WASTE | | | | | |
| Total waste | metric tonnes | 152,480 | 126,970 | 127,201 | 131,461 |
| Waste directed to recycling | metric tonnes | 37,267 | 28,511 | 36,468 | 28,802 |
| Waste directed to disposal | metric tonnes | 115,213 | 98,459 | 90,777 | 102,588 |
| Non-hazardous | metric tonnes | 151,971 | 126,557 | 126,763 | 131,127 |
| Hazardous | metric tonnes | 510 | 413 | 438 | 334 |
| Share of total waste that is hazardous | % | 0.3 | 0.3 | 0.3 | 0.3 |

| Key Figures | Unit | 2022 | 2021 | 2020 | 2019 |
|---|------------|-------|-------|-------|-------|
| WATER | | | | | |
| Water withdrawal | megaliters | 4,372 | 4,556 | 4,230 | 4,365 |
| of which in regions with water stress ² | megaliters | 331 | 599 | 533 | |
| Share of water withdrawal in regions with water stress ² | % | 7.6 | 13.1 | 12.6 | |
| Recovered water ³ | megaliters | 1,966 | 2,321 | 2,133 | 2,204 |
| Share of recovered water | % | 45 | 51 | 50 | 50 |
| Water discharge | megaliters | 715 | 736 | 750 | 804 |

| Key Figures | | 2022 | 2021 | 2020 | 2019 |
|---|-----|------|------------------|------|------|
| CIRCULARITY | | | | | |
| % of AAC and CSU leftovers directed from our plants to landfill | AAC | 13% | 11% ⁴ | - | - |
| | CSU | 25% | 16% | - | - |

¹ Deviation from total due to estimations.

² Number of plants in water stress area has changed in 2022 (according to WWF Water risk filter)

³ Water that is returned from the production process to the usage cycle.

⁴ Figures for 2021 have been adjusted to reflect updated data.

| Key Figures | Unit | 2022 | 2021 | 2020 | 2019 |
|--|--------|------|------|------|------|
| GOVERNANCE | | | | | |
| Local Sourcing ¹ | | | | | |
| Total share of materials sourced locally | % | 85 | 86 | 86 | 86 |
| Share of main raw materials sourced locally (sand, cement and lime) | % | 83 | 84 | 85 | 85 |
| Governance (Compliance) | | | | | |
| Confirmed incidents of corruption | Number | 0 | 0 | 0 | 0 |
| Legal incidents for anticompetitive behavior | Number | 0 | 0 | 0 | 0 |
| Noncompliance with social/economic laws and regulations | Number | 0 | 0 | 0 | 0 |
| Noncompliance with environmental laws and regulations | Number | 0 | 0 | 0 | 0 |
| Complaints concerning customer privacy breaches and customer-data loss | Number | 0 | 0 | 0 | 0 |

¹ Sourced locally means sourced from the country of production

| Key Figures | Unit | 2022 | 2021 | 2020 | 2019 |
|---|----------|-------|-------|-------|-------|
| HEALTH & SAFETY | | | | | |
| Recordable work-related injuries | Number | 88 | 74 | 82 | 93 |
| High-consequence work-related injuries | Number | 0 | 0 | 1 | 2 |
| Work-related fatalities | Number | 0 | 0 | 0 | 1 |
| Lost-time injury rate ⁴ | LTI rate | 10.1 | 8.4 | 9.5 | 9.5 |
| Percentage of employees covered by an occupational health and safety management system ⁵ | % | 6.7 | - | - | - |
| Safety Walks to increase awareness | Number | 1,865 | 2,004 | 1,591 | 1,967 |

| Key Figures | Unit | 2022 | 2021 | 2020 | 2019 |
|--|-----------|-------|-------|-------|-------|
| EMPLOYEES | | | | | |
| Total number of employees | Headcount | 5,223 | 5,460 | 5,353 | 5,711 |
| Of which in Germany | % | 34.8 | 33.4 | 33.8 | 32.0 |
| Of which in Europe (excl. Germany, incl. Russia) | % | 65.2 | 66.6 | 66.2 | 68.0 |
| Percentage of employees with permanent contract | % | 92.6 | 92.6 | 92.9 | 91.2 |
| Percentage of female employees | % | 20.2 | 20.2 | 20.2 | 19.6 |
| Percentage of female managers | % | 19.8 | 18.9 | 18.0 | - |
| Percentage of employees covered by collective bargaining agreements | % | 57.2 | 56.8 | 59.3 | 56.2 |
| Percentage of employees with regular performance and career development review | % | 59.4 | 58.3 | 57.2 | 50.7 |
| Average age ¹ | Number | 44.9 | 45.0 | 44.9 | - |
| Percentage of C-level management under 50 years of age | % | 33.3 | 33.3 | 50.0 | 75.0 |
| Percentage of part-time employees | % | 5.0 | 4.6 | 5.3 | 4.6 |
| Percentage of employees on parental leave | % | 2.4 | 2.6 | 2.5 | 2.5 |

⁴ Calculated based on 1,000,000 hours worked.

⁵ The central EHS regulations are based on recognized risk-management standards, such as BS OHSAS 18001 and ISO 45001. We therefore consider certifications to be necessary only in exceptional situations.

¹ By age cluster

Key data in this section has been independently audited.


| Employees by gender and region | Region ¹ | Total | | | | Female | | | | Male | | | |
|---|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | 2022 | 2021 | 2020 | 2019 | 2022 | 2021 | 2020 | 2019 | 2022 | 2021 | 2020 | 2019 |
| Headcounts | Group | 5,223 | 5,460 | 5,353 | 5,711 | 1,056 | 1,102 | 1,080 | 1,119 | 4,167 | 4,358 | 4,273 | 4,592 |
| | Germany | 1,817 | 1,822 | 1,807 | 1,827 | 334 | 344 | 332 | 330 | 1,483 | 1,478 | 1,475 | 1,497 |
| | Europe | 3,406 | 3,638 | 3,546 | 3,884 | 722 | 758 | 748 | 789 | 2,684 | 2,880 | 2,798 | 3,095 |
| Temporary | Group | 384 | 404 | 378 | 502 | 72 | 89 | 77 | 92 | 312 | 315 | 301 | 410 |
| | Germany | 140 | 144 | 190 | 193 | 26 | 37 | 42 | 37 | 114 | 107 | 148 | 156 |
| | Europe | 244 | 260 | 188 | 309 | 46 | 52 | 35 | 55 | 198 | 208 | 153 | 254 |
| Permanent | Group | 4,839 | 5,056 | 4,975 | 5,209 | 984 | 1,013 | 1,003 | 1,027 | 3,855 | 4,043 | 3,972 | 4,182 |
| | Germany | 1,677 | 1,678 | 1,617 | 1,634 | 308 | 307 | 290 | 293 | 1,369 | 1,371 | 1,327 | 1,341 |
| | Europe | 3,162 | 3,378 | 3,358 | 3,575 | 676 | 706 | 713 | 734 | 2,486 | 2,672 | 2,645 | 2,841 |
| Full-time | Group | 4,896 | 5,156 | 4,997 | 5,379 | 845 | 892 | 867 | 924 | 4,051 | 4,264 | 4,130 | 4,455 |
| | Germany | 1,610 | 1,631 | 1,602 | 1,639 | 203 | 214 | 207 | 219 | 1,407 | 1,417 | 1,395 | 1,420 |
| | Europe | 3,286 | 3,525 | 3,395 | 3,740 | 642 | 678 | 660 | 705 | 2,644 | 2,847 | 2,735 | 3,035 |
| Part-time | Group | 262 | 252 | 283 | 262 | 197 | 195 | 189 | 176 | 65 | 57 | 94 | 86 |
| | Germany | 157 | 152 | 142 | 128 | 122 | 121 | 107 | 95 | 35 | 31 | 35 | 33 |
| | Europe | 105 | 100 | 141 | 134 | 75 | 74 | 82 | 81 | 30 | 26 | 59 | 53 |
| Apprentices | Group | 65 | 52 | 73 | 70 | 14 | 15 | 24 | 19 | 51 | 37 | 49 | 51 |
| | Germany | 50 | 39 | 63 | 60 | 9 | 9 | 18 | 16 | 41 | 30 | 45 | 44 |
| | Europe | 15 | 13 | 10 | 10 | 5 | 6 | 6 | 3 | 10 | 7 | 4 | 7 |
| New employees | Group | 715 | 805 | 466 | 1,068 | 145 | 177 | 116 | - | 570 | 628 | 350 | - |
| | Germany | 214 | 210 | 189 | 273 | 37 | 52 | 49 | - | 177 | 158 | 140 | - |
| | Europe | 501 | 595 | 277 | 795 | 108 | 125 | 67 | - | 393 | 470 | 210 | - |
| New-employee rate in % | Group | 13.4 | 14.9 | 8.4 | 18.6 | 13.4 | 16.2 | 10.6 | - | 13.4 | 14.6 | 7.9 | - |
| | Germany | 11.8 | 11.6 | 10.4 | 15.3 | 10.9 | 15.4 | 14.8 | - | 12.0 | 10.7 | 9.4 | - |
| | Europe | 14.2 | 16.6 | 7.5 | 20.1 | 14.6 | 16.6 | 8.7 | - | 14.1 | 16.6 | 7.1 | - |
| Staff turnover | Group | 753 | 596 | 746 | 777 | 141 | 126 | 130 | - | 612 | 470 | 616 | - |
| | Germany | 186 | 157 | 158 | 152 | 34 | 30 | 34 | - | 152 | 127 | 124 | - |
| | Europe | 567 | 439 | 588 | 625 | 107 | 96 | 96 | - | 460 | 343 | 492 | - |
| Staff turnover rate in % | Group | 14.1 | 11.0 | 13.5 | 13.5 | 13.1 | 11.6 | 11.8 | - | 14.4 | 10.9 | 13.9 | - |
| | Germany | 10.2 | 8.7 | 8.7 | 8.5 | 10.0 | 8.9 | 10.3 | - | 10.3 | 8.6 | 8.3 | - |
| | Europe | 16.1 | 12.2 | 15.8 | 15.8 | 14.5 | 12.8 | 12.5 | - | 16.5 | 12.1 | 16.7 | - |
| Parental leave | Group | 126 | 144 | 134 | 142 | 67 | 77 | 76 | 71 | 59 | 67 | 58 | 71 |
| Working part time while on parental leave | Group | 35 | 22 | 22 | 34 | 19 | 16 | 14 | 19 | 16 | 6 | 8 | 15 |

¹ Europe excluding Germany, including Russia.

| Employee diversity by management structure | Region ¹ | Total | | | | Manager | | | | Non-management | | | | Governance body | | | |
|--|---------------------|-------|-------|-------|-------|---------|------|------|------|----------------|-------|-------|------|-----------------|------|-------|-------|
| | | 2022 | 2021 | 2020 | 2019 | 2022 | 2021 | 2020 | 2019 | 2022 | 2021 | 2020 | 2019 | 2022 | 2021 | 2020 | 2019 |
| Headcounts | Group | 5,223 | 5,460 | 5,353 | 5,711 | 550 | 555 | 533 | - | 4,673 | 4,905 | 4,820 | - | 6 | 6 | 4 | 4 |
| | Germany | 1,817 | 1,822 | 1,807 | 1,827 | 194 | 193 | 174 | - | 1,623 | 1,629 | 1,633 | - | 6 | 6 | 4 | 4 |
| | Europe | 3,406 | 3,638 | 3,546 | 3,884 | 356 | 362 | 359 | - | 3,050 | 3,276 | 3,187 | - | 0 | 0 | 0 | 0 |
| Female in % | Group | 20.2 | 20.2 | 20.2 | 19.6 | 19.8 | 18.9 | 18.0 | - | 20.3 | 20.3 | 20.4 | - | 16.7 | 16.7 | 0.0 | 0.0 |
| | Germany | 18.4 | 18.9 | 18.4 | 18.1 | 15.5 | 15.0 | 13.8 | - | 18.7 | 19.3 | 18.9 | - | 16.7 | 16.7 | 0.0 | 0.0 |
| | Europe | 21.2 | 20.8 | 21.1 | 20.3 | 22.2 | 21.0 | 20.1 | - | 21.1 | 20.8 | 21.2 | - | 0.0 | 0.0 | 0.0 | 0.0 |
| Male in % | Group | 79.8 | 79.8 | 79.8 | 80.4 | 80.2 | 81.1 | 82.0 | - | 79.7 | 79.7 | 79.6 | - | 83.3 | 83.3 | 100.0 | 100.0 |
| | Germany | 81.6 | 81.1 | 81.6 | 81.9 | 84.5 | 85.0 | 86.2 | - | 81.3 | 80.7 | 81.1 | - | 83.3 | 83.3 | 100.0 | 100.0 |
| | Europe | 78.8 | 79.2 | 78.9 | 79.7 | 77.8 | 79.0 | 79.9 | - | 78.9 | 79.2 | 78.8 | - | 0.0 | 0.0 | 0.0 | 0.0 |
| Up to 30 years in % | Group | 12.5 | 12.7 | 12.6 | 12.7 | 2.0 | 2.3 | 3.4 | - | 13.7 | 13.8 | 13.6 | - | 0.0 | 0.0 | 0.0 | 0.0 |
| | Germany | 13.7 | 13.8 | 14.6 | 13.5 | 2.1 | 3.6 | 2.3 | - | 15.1 | 15.0 | 15.9 | - | 0.0 | 0.0 | 0.0 | 0.0 |
| | Europe | 11.9 | 12.1 | 11.6 | 12.3 | 2.0 | 1.7 | 3.9 | - | 13.0 | 13.2 | 12.5 | - | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 - 50 years in % | Group | 50.0 | 49.4 | 49.8 | 49.4 | 58.0 | 59.1 | 58.0 | - | 49.1 | 48.3 | 48.9 | - | 33.3 | 33.3 | 50.0 | 75.0 |
| | Germany | 43.7 | 44.2 | 43.6 | 42.5 | 46.4 | 49.2 | 48.3 | - | 43.4 | 43.6 | 43.0 | - | 33.3 | 33.3 | 50.0 | 75.0 |
| | Europe | 53.4 | 52.0 | 53.0 | 52.6 | 64.3 | 64.4 | 62.7 | - | 52.1 | 50.6 | 52.0 | - | 0.0 | 0.0 | 0.0 | 0.0 |
| Over 50 years in % | Group | 37.5 | 38.0 | 37.6 | 37.9 | 40.0 | 38.6 | 38.6 | - | 37.2 | 37.9 | 37.4 | - | 66.7 | 66.7 | 50.0 | 25.0 |
| | Germany | 42.6 | 42.0 | 41.9 | 44.0 | 51.5 | 47.2 | 49.4 | - | 41.5 | 41.4 | 41.1 | - | 66.7 | 66.7 | 50.0 | 25.0 |
| | Europe | 34.7 | 36.0 | 35.4 | 35.1 | 33.7 | 34.0 | 33.4 | - | 34.9 | 36.2 | 35.6 | - | 0.0 | 0.0 | 0.0 | 0.0 |

| Training by management structure | Region ¹ | Total | | | | Manager | | | | Non-management | | | | Governance body | | | |
|----------------------------------|---------------------|-------|------|------|------|---------|------|------|------|----------------|------|------|------|-----------------|------|------|------|
| | | 2022 | 2021 | 2020 | 2019 | 2022 | 2021 | 2020 | 2019 | 2022 | 2021 | 2020 | 2019 | 2022 | 2021 | 2020 | 2019 |
| Average training hours | Group | 20.0 | 15.3 | 10.3 | 10.6 | 32.9 | 28.8 | 16.8 | - | 18.5 | 13.8 | 9.6 | - | - | - | - | - |
| Female | Group | 19.4 | 17.5 | 10.5 | - | 37.3 | 41.5 | 21.2 | - | 17.3 | 15.0 | 9.5 | - | - | - | - | - |
| Male | Group | 20.2 | 14.8 | 10.3 | - | 31.8 | 25.9 | 15.8 | - | 18.8 | 13.5 | 9.7 | - | - | - | - | - |

| Training by type of work | Region ¹ | Total | | | | Production | | | | Administration | | | | Distribution | | | |
|--------------------------|---------------------|-------|------|------|------|------------|------|------|------|----------------|------|------|------|--------------|------|------|------|
| | | 2022 | 2021 | 2020 | 2019 | 2022 | 2021 | 2020 | 2019 | 2022 | 2021 | 2020 | 2019 | 2022 | 2021 | 2020 | 2019 |
| Average training hours | Group | 20.0 | 15.3 | 10.3 | 10.6 | 20.4 | 14.3 | 10.2 | 8.5 | 22.9 | 20.8 | 8.5 | 17.0 | 17.5 | 15.7 | 11.7 | 14.2 |
| Female | Group | 19.4 | 17.5 | 10.5 | - | 22.1 | 14.3 | 9.7 | - | 20.9 | 23.6 | 9.7 | - | 16.3 | 15.0 | 11.8 | - |
| Male | Group | 20.2 | 14.8 | 10.3 | - | 20.2 | 14.3 | 10.3 | - | 25.5 | 17.2 | 7.1 | - | 18.1 | 16.0 | 11.6 | - |

¹ Europe excluding Germany, including Russia.
 Key data in this section has been independently audited.

| Employee diversity by type of work | Region ¹ | Total | Production | | | | Administration | | | | Distribution | | | | | | |
|------------------------------------|---------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|--------------|-------------|--------------|-------------|-------------|--------------|--------------|--------------|--------------|
| | | 2022 | 2021 | 2020 | 2019 | 2022 | 2021 | 2020 | 2019 | 2022 | 2021 | 2020 | 2019 | | | | |
| Headcounts | Group | 5,223 | 5,460 | 5,353 | 5,711 | 3,426 | 3,642 | 3,581 | 3,877 | 611 | 622 | 624 | 619 | 1,186 | 1,196 | 1,148 | 1,215 |
| | Germany | 1,817 | 1,822 | 1,807 | 1,827 | 1,210 | 1,198 | 1,185 | 1,205 | 281 | 294 | 293 | 272 | 326 | 330 | 329 | 350 |
| | Europe | 3,406 | 3,638 | 3,546 | 3,884 | 2,216 | 2,444 | 2,396 | 2,672 | 330 | 328 | 331 | 347 | 860 | 866 | 819 | 865 |
| Female in % | Group | 20.2 | 20.2 | 20.2 | 19.6 | 8.4 | 8.9 | 9.2 | 8.6 | 56.5 | 56.3 | 54.3 | 55.9 | 35.6 | 35.8 | 36.0 | 36.1 |
| | Germany | 18.4 | 18.9 | 18.4 | 18.1 | 7.4 | 7.6 | 7.4 | 7.1 | 46.6 | 47.3 | 45.1 | 44.1 | 35.0 | 34.5 | 34.0 | 35.7 |
| | Europe | 21.2 | 20.8 | 21.1 | 20.3 | 9.0 | 9.5 | 10.0 | 9.3 | 64.8 | 64.3 | 62.5 | 65.1 | 35.8 | 36.3 | 36.7 | 36.3 |
| Male in % | Group | 79.8 | 79.8 | 79.8 | 80.4 | 91.6 | 91.1 | 90.8 | 91.4 | 43.5 | 43.7 | 45.7 | 44.1 | 64.4 | 64.2 | 64.0 | 63.9 |
| | Germany | 81.6 | 81.1 | 81.6 | 81.9 | 92.6 | 92.4 | 92.6 | 92.9 | 53.4 | 52.7 | 54.9 | 55.9 | 65.0 | 65.5 | 66.0 | 64.3 |
| | Europe | 78.8 | 79.2 | 78.9 | 79.7 | 91.0 | 90.5 | 90.0 | 90.7 | 35.2 | 35.7 | 37.5 | 34.9 | 64.2 | 63.7 | 63.3 | 63.7 |
| Up to 30 years in % | Group | 12.5 | 12.7 | 12.6 | 12.7 | 12.4 | 11.8 | 11.5 | 11.4 | 12.3 | 15.1 | 15.4 | 15.2 | 13.0 | 14.0 | 14.5 | 15.6 |
| | Germany | 13.7 | 13.8 | 14.6 | 13.5 | 13.7 | 12.8 | 14.0 | 12.5 | 14.2 | 16.0 | 15.7 | 16.5 | 13.2 | 15.5 | 15.5 | 14.6 |
| | Europe | 11.9 | 12.1 | 11.6 | 12.3 | 11.6 | 11.3 | 10.3 | 10.9 | 10.6 | 14.3 | 15.1 | 14.1 | 12.9 | 13.5 | 14.0 | 16.0 |
| 31 - 50 years in % | Group | 50.0 | 49.4 | 49.8 | 49.4 | 45.6 | 45.1 | 45.1 | 45.1 | 59.2 | 58.2 | 61.1 | 61.1 | 58.0 | 57.9 | 58.4 | 57.2 |
| | Germany | 43.7 | 44.2 | 43.6 | 42.5 | 41.1 | 41.7 | 40.3 | 39.4 | 52.7 | 53.7 | 55.3 | 56.3 | 45.7 | 45.2 | 44.7 | 42.6 |
| | Europe | 53.4 | 52.0 | 53.0 | 52.6 | 48.1 | 46.7 | 47.5 | 47.6 | 64.8 | 62.2 | 66.2 | 64.8 | 62.7 | 62.8 | 64.0 | 63.1 |
| Over 50 years in % | Group | 37.5 | 38.0 | 37.6 | 37.9 | 42.0 | 43.2 | 43.4 | 43.6 | 28.5 | 26.7 | 23.6 | 23.7 | 29.0 | 28.0 | 27.1 | 27.2 |
| | Germany | 42.6 | 42.0 | 41.9 | 44.0 | 45.2 | 45.6 | 45.7 | 48.0 | 33.1 | 30.3 | 29.0 | 27.2 | 41.1 | 39.4 | 39.8 | 42.9 |
| | Europe | 34.7 | 36.0 | 35.4 | 35.1 | 40.3 | 42.0 | 42.2 | 41.5 | 24.5 | 23.5 | 18.7 | 21.0 | 24.4 | 23.7 | 22.0 | 20.9 |
| Disabled in % | Group | 2.3 | 2.0 | 1.9 | 2.1 | 2.8 | 2.5 | 2.3 | 2.6 | 2.5 | 1.6 | 1.6 | 1.9 | 0.9 | 0.8 | 1.0 | 0.4 |
| | Germany | 4.6 | 4.1 | 3.8 | 3.3 | 5.5 | 5.1 | 4.5 | 4.6 | 3.2 | 2.0 | 2.0 | 2.2 | 2.8 | 2.1 | 2.7 | 0.0 |
| | Europe | 1.1 | 1.0 | 1.0 | 1.5 | 1.3 | 1.2 | 1.2 | 1.8 | 1.8 | 1.2 | 1.2 | 1.7 | 0.2 | 0.2 | 0.4 | 0.6 |

³⁸ Europe excluding Germany, including Russia.

XELLA GRI CONTENT INDEX 2022

The GRI Disclosures marked with a check mark  have been subjected to a limited assurance by the auditing firm PricewaterhouseCoopers. The limited assurance does not include an audit of the principles of the UN Global Compact.

| GRI Disclosure | Disclosure | Audit | Page | UNGC* | Location |
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| GENERAL DISCLOSURES | | | | | |
| 2-1 | Organizational details | | 5 | | About Xella and scope of report |
| 2-2 | Entities included in the organization's sustainability reporting | | 5 | | About Xella and scope of report |
| 2-3 | Reporting period, frequency and contact point | | 5 | | About Xella and scope of report and about this report |
| 2-4 | Restatements of information | | | | There were no restatements of information from previous reporting years |
| 2-5 | External assurance | | 5 | | About Xella and scope of report |
| 2-6 | Activities, value chain and other business relationships | | | 4,6,7,8 | Our products and services; Our business model and ESG strategy. Since the last reporting period, Xella Group has sold its URSA brand of products and reset all of its sustainability targets based on its new 'building materials' only model. |
| 2-7 | Employees | | | 6 | 5,223 employees at end of Dec 2022. Breakdown by region is limited to Germany and RoE. |
| 2-9 | Governance structure and composition | | 17 | | 1.3 Governance of ESG |
| 2-10 | Nomination and selection of the highest governance body | | 17 | | 1.3 Governance of ESG |
| 2-11 | Chair of the highest governance body | | 17 | | 1.3 Governance of ESG |
| 2-12 | Role of the highest governance body in overseeing the management of impacts | | 17 | | 1.3 Governance of ESG |
| 2-13 | Delegation of responsibility for managing impacts | | 17 | | 1.3 Governance of ESG |
| 2-14 | Role of the highest governance body in sustainability reporting | | 17 | | 1.3 Governance of ESG |
| 2-15 | Conflicts of interest | | 18 | | 1.4 Compliance and doing business in an ethical manner |
| 2-16 | Communication of critical concerns | | 18, 25 | | 1.4 Compliance and doing business in an ethical manner; 2.2. Supporting local communities (see text on grievance mechanism) |
| 2-17 | Collective knowledge of the highest governance body | | 4 | | Foreword |
| 2-19 | Remuneration policies | | 43 | | 4. Looking ahead |
| 2-22 | Statement on sustainable development strategy | | 4, 13 | | Foreword; 1.1 Our business model and ESG strategy |

| GRI Disclosure | Disclosure | Audit | Page | UNGC* | Location |
|----------------|--|-------|--------|-------|--|
| 2-23 | Policy commitments | | 17 | 1-10 | 1.3 Governance of ESG; 1.4 Compliance and doing business in an ethical manner; 2.5 Working with suppliers; 3.1 Our approach to building a more sustainable world |
| 2-24 | Embedding policy commitments | | 22, 34 | | See 'management approach' section in each of the Our people and Our environment sub-sections |
| 2-25 | Processes to remediate negative impacts | | 18, 25 | | 1.4 Compliance and doing business in an ethical manner; 2.2 Supporting local communities (see text on grievance mechanism) |
| 2-26 | Mechanisms for seeking advice and raising concerns | | 18 | 1-10 | 1.4 Compliance and doing business in an ethical manner |
| 2-27 | Non-compliance with laws and regulations | | 18 | | 1.4 Compliance and doing business in an ethical manner |
| 2-28 | Membership associations | | 19 | | 1.5 Collaborations |
| 2-29 | Approach to stakeholder engagement | | 14 | | 1.2 Stakeholder engagement |
| 2-30 | Collective bargaining agreements | | 46 | 3 | 5.2 Key Figures at a Glance |

| GRI Disclosure | Disclosure | Audit | Chapter | Page | UNGC* | Comment | Topic boundary ** |
|--|---|-------|--|--------|-------|---------|-----------------------------------|
| SPECIFIC DISCLOSURES | | | | | | | |
| ECONOMIC | | | | | | | |
| GRI 201: Economic Performance (2016) | | | | | | | |
| 3-3 | Management approach | | 1.1 Our business model and ESG strategy | 13 | 7 | | X |
| 201-1 | Direct economic value generated and distributed | | About Xella and scope of report; 1.1 Our business model and ESG strategy | 5, 13 | 3 | | X Value Chain Product Usage |
| 201-2 | Financial implications and other risks and opportunities due to climate change | | 3.1 Our approach to a more sustainable world; 3.2 Energy and emissions | 33, 34 | 7 | | X Value Chain Product Usage |
| GRI 203: Indirect Economic Impacts (2016) | | | | | | | |
| 3-3 | Management approach | | Foreword | 4 | | | X |
| 203-2 | Significant indirect economic impacts | | Table of targets and performance | 7 | | | X Value Chain Product Usage |
| GRI 204: Procurement Practices (2016) | | | | | | | |
| 3-3 | Management approach | | 1.4 Compliance and doing business in an ethical manner | 18 | | | Value Chain |
| 204-1 | Proportion of spending on local suppliers | | 2.5 Working with suppliers | 31 | | | Value Chain |
| GRI 205: Anti-corruption (2016) | | | | | | | |
| 3-3 | Management approach | | 1.4 Compliance and doing business in an ethical manner | 18 | 10 | | X |
| 205-3 | Confirmed incidents of corruption and actions taken | | 1.4 Compliance and doing business in an ethical manner | 18 | 10 | | X |
| GRI 206: Anti-competitive Behavior (2016) | | | | | | | |
| 3-3 | Management approach | | 1.4 Compliance and doing business in an ethical manner | 18 | 10 | | X |
| 206-1 | Legal actions for anti-competitive behavior, anti-trust, and monopoly practices | | 1.4 Compliance and doing business in an ethical manner | 18 | 10 | | X Value Chain Product Usage |

| GRI Disclosure | Disclosure | Audit | Chapter | Page | UNGC* | Comment | Topic boundary ** |
|--|--|-------|--|------------|---------|---------|-------------------|
| ENVIRONMENTAL | | | | | | | |
| GRI 301: Materials (2016) | | | | | | | |
| 3-3 | Management approach | | 3.1 Our approach to a more sustainable world; 3.3 Waste and resources management | 33, 38 | 7, 8, 9 | | X |
| 301-1 | Materials used by weight or volume | | Our 2022 highlights at a glance | 6 | 7, 8, 9 | | X Value Chain |
| 302-2 | Recycled input materials used | | 3.3 Waste and resources management | 38 | 7, 8, 9 | | X Value Chain |
| GRI 302: Energy (2016) | | | | | | | |
| 3-3 | Management approach | ☑ | 3.2 Energy and emissions | 34 | 7, 8, 9 | | X |
| 302-1 | Energy consumption within the organization | ☑ | 5.2 Key Figures at a Glance | 46 | 7, 8, 9 | | X Value Chain |
| 302-3 | Energy intensity | | 5.2 Key Figures at a Glance | 46 | 7, 8, 9 | | X Value Chain |
| GRI 303: Water and Effluents (2018) | | | | | | | |
| 3-3 | Management approach | | 3.4 Water management | 41 | 7, 8, 9 | | X |
| 303-3 | Water withdrawal | | 5.2 Key Figures at a Glance | 46 | 7, 8, 9 | | X Value Chain |
| 303-4 | Water discharge | | 5.2 Key Figures at a Glance | 46 | 7, 8, 9 | | X Value Chain |
| 303-5 | Water consumption | | 5.2 Key Figures at a Glance | 46 | 7, 8, 9 | | X Value Chain |
| GRI 305: Emissions (2016) | | | | | | | |
| 3-3 | Management approach | ☑ | 3.2 Energy and emissions | 34 | 7, 8, 9 | | X |
| 305-1 | Direct (Scope 1) GHG emissions | ☑ | 5.2 Key Figures at a Glance | 46 | 7, 8, 9 | | X |
| 305-2 | Indirect (Scope 2) GHG emissions | ☑ | 5.2 Key Figures at a Glance | 46 | 7, 8, 9 | | X Value Chain |
| 305-3 | Other indirect (Scope 3) GHG emissions | ☑ | 3.2 Energy and emissions; 5.2 Key Figures at a Glance | 35, 45, 46 | 7, 8, 9 | | |
| 305-4 | GHG emissions intensity | ☑ | 5.2 Key Figures at a Glance | 46 | 7, 8, 9 | | X Value Chain |

| GRI Disclosure | Disclosure | Audit | Chapter | Page | UNGC* | Comment | Topic boundary ** |
|--|--|-------|--|-------|---------|--|-------------------|
| GRI 306: Waste (2020) | | | | | | | |
| 3-3 | Management approach | | 3.3 Waste and resources management | 38 | 7, 8, 9 | | X |
| 306-3 | Waste generated | | 5.2 Key Figures at a Glance | 46 | 7, 8, 9 | We define as waste all materials that we dispose of for landfill or for further recycling by third parties. Reused production residues and offcuts are not waste, as we collect and store them sort-clean and return them to the production process. | X 🔗 |
| 306-4 | Waste diverted from disposal | | 5.2 Key Figures at a Glance | 46 | 7, 8, 9 | | X 🔗 |
| 306-5 | Waste direct to disposal | | 5.2 Key Figures at a Glance | 46 | 7, 8, 9 | | X 🔗 |
| GRI 307: Environmental Compliance (2016) | | | | | | | |
| 3-3 | Management approach | | 3.1 Our approach to a more sustainable world | 33 | 7, 8, 9 | | X |
| 307-1 | Non-compliance with environmental laws and regulations | | - | | 7, 8, 9 | | X |
| GRI 308: Supplier Environmental Assessment (2016) | | | | | | | |
| 3-3 | Management approach | | Table of targets, KPIs and performance; 2.5 Working with suppliers | 7, 31 | 7, 8, 9 | | X |
| 308-1 | New suppliers that were screened using environmental criteria | | 2.5 Working with suppliers | 31 | 7, 8, 9 | Suppliers are selected and awarded contracts according to our Supplier Code of Conduct and Purchasing Policy. We address negative ESG impacts in annual meetings with our key suppliers. From 2023, we will audit suppliers on ESG aspects. | X 🔗 |
| 308-2 | Negative environmental impacts in the supply chain and actions taken | | | | 7, 8, 9 | No negative impacts were brought to our attention and therefore no action was taken. | X 🔗 |

| GRI Disclosure | Disclosure | Audit | Chapter | Page | UNGC* | Comment | Topic boundary ** |
|---|---|-------|---|-------|-------|---|-------------------|
| SOCIAL | | | | | | | |
| GRI 401: Employment (2016) | | | | | | | |
| 3-3 | Management approach | | 2.3 Recruitment and retention of talent | 28 | 6 | | X |
| 401-1 | New employee hires and employee turnover | | 5.2 Key Figures at a Glance | 46 | 6 | | X |
| 401-3 | Parental leave | | 2.3 Recruitment and retention of talent | 28 | 6 | | X |
| GRI 403: Occupational Health and Safety (2018) | | | | | | | |
| 3-3 | Management approach | ☑ | 2.1 Occupational safety | 22 | | | X |
| 403-2 | Hazard identification, risk assessment, and incident investigation | | 2.1 Occupational safety | 22 | | | X |
| 403-4 | Worker participation, consultation, and communication on occupational health and safety | | Materiality assessment [1.2 Stakeholder engagement] | 14 | | | X |
| 403-5 | Worker training on occupational health and safety | | 2.1 Occupational safety | 22 | | | X |
| 403-6 | Promotion of worker health | | 2.1 Occupational safety | 22 | | | X |
| 403-8 | Workers covered by an occupational health and safety management system | | 5.2 Key Figures at a Glance | 46 | | Xella's central occupational safety guidelines and regulations are based on recognised risk management standards and guidelines, such as BS OHSAS 18001 and ISO 45001 | X |
| 403-9a | Work-related injuries | ☑ | 5.2 Key Figures at a Glance | 46 | | | X |
| GRI 404: Training and Education (2016) | | | | | | | |
| 3-3 | Management approach | ☑ | 2.3 Recruitment and retention of talent | 28 | 6 | | X |
| 404-1 | Average hours of training per year per employee | ☑ | Table of targets; 2.3 Recruitment and retention of talent | 7, 28 | 6 | | X |
| 404-3 | Percentage of employees receiving regular performance and career development reviews | | 2.3 Recruitment and retention of talent | 28 | 6 | | X |

| GRI Disclosure | Disclosure | Audit | Chapter | Page | UNGC* | Comment | Topic boundary ** |
|---|--|-------|--|------|-------|--|-------------------|
| GRI 405: Diversity and Equal Opportunity (2021) | | | | | | | |
| 3-3 | Management approach | | 2.4 Diversity and inclusion | 30 | 6 | | ✗ |
| 405-1 | Diversity of governance bodies and employees | | 5.2 Key Figures at a Glance | 46 | 6 | | ✗ |
| 405-2 | Ratio of basic salary and remuneration of women to men | | | | 6 | In line with our values, our Code of Conduct and our Non-Discrimination Guideline, we do not differentiate in terms of remuneration by gender, but rather by function and performance. | ✗ |
| GRI 406: Non-discrimination (2016) | | | | | | | |
| 3-3 | Management approach | | 2.4 Diversity and inclusion | 30 | 6 | | ✗ |
| 406-1 | Incidents of discrimination and corrective actions taken | | 1.4 Compliance and doing business in an ethical manner | 18 | 6 | | ✗ |
| GRI 407: Freedom of Association and Collective Bargaining (2016) | | | | | | | |
| 3-3 | Management approach | | | | 3 | At Xella we promote and ensure a close dialogue with employees and their representatives. This is laid out in our policies on freedom of association and collective bargaining. | ✗ |
| 407-1 | Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk | | | | 3 | There were none, as we mainly produce in Europe and source from local suppliers. | ✗ 🔗 |
| GRI 408: Child Labor (2016) | | | | | | | |
| 3-3 | Management approach | | 1.4 Compliance and doing business in an ethical manner | 18 | 5 | Rejection of child labor is included in our Supplier Code of Conduct | ✗ |
| 408-1 | Operations and suppliers at significant risk for incidents of child labor | | 1.4 Compliance and doing business in an ethical manner | 18 | 4 | None as we mainly produce in Europe and source from local suppliers. | ✗ 🔗 |

| GRI Disclosure | Disclosure | Audit | Chapter | Page | UNGC* | Comment | Topic boundary ** |
|---|--|-------|--|--------|---------|--|-------------------|
| GRI 409: Forced or Compulsory Labor (2016) | | | | | | | |
| 3-3 | Management approach | | 1.4 Compliance and doing business in an ethical manner; 2.5 Working with suppliers | 18, 31 | 4 | Rejection of forced or compulsory labor is included in our Supplier Code of Conduct | ✗ 🔗 |
| 409-1 | Operations and suppliers at significant risk for incidents of forced or compulsory labor | | 1.4 Compliance and doing business in an ethical manner | 18 | 4 | There were none, as we mainly produce in Europe and source from local suppliers. | ✗ 🔗 |
| GRI 413: Local Communities (2016) | | | | | | | |
| 3-3 | Management approach | | 2.2 Supporting local communities | 25 | | | ✗ |
| 413 -2 | Operations with significant actual and potential negative impacts on local communities | | 2.2 Supporting local communities | 25 | 7, 8, 9 | | ✗ 🔗 |
| GRI 414: Supplier Social Assessment (2016) | | | | | | | |
| 3-3 | Management approach | | 2.5 Working with suppliers; 4. Looking ahead | 31, 43 | 1-6 | | ✗ 🔗 |
| 414-1 | New suppliers that were screened using social criteria | | | | 1-6 | Suppliers are selected and awarded contracts according to our Supplier Code of Conduct and Purchasing Policy. We address negative ESG impacts in annual meetings with our key suppliers. | |
| 414-2 | Negative social impacts in the supply chain and actions taken | | | | 1-6 | No negative impacts were brought to our attention and therefore no action was taken. | 🔗 |
| GRI 415: Public Policy (2016) | | | | | | | |
| 3-3 | Management approach | | 1.4 Compliance and doing business in an ethical manner | 18 | 10 | | ✗ |
| 415-1 | Political contributions | | 1.4 Compliance and doing business in an ethical manner | 18 | 10 | | ✗ |

| GRI Disclosure | Disclosure | Audit | Chapter | Page | UNGC* | Comment | Topic boundary ** |
|---|---|-------|--|------|-------|---|-------------------|
| GRI 416: Customer Health and Safety (2016) | | | | | | | |
| 3-3 | Management approach | | Our products and services | 9 | | Also see our quality and certifications page at https://sustainability.xella.com | ⚙️ |
| 416-1 | Assessment of the health and safety impacts of product and service categories | | Our products and services | 9 | | Xella products comply with the requirements of national and European standards, as well as national building authority approvals. Xella is subject to the Construction Products Regulation and continuously checks its products for health and safety. A percentage cannot be shown at present. | ⚙️ |
| 416-2 | Incidents of non-compliance concerning the health and safety impacts of products and services | | | | | None. | ⚙️ |
| GRI 418: Customer Privacy (2016) | | | | | | | |
| 3-3 | Management approach | | 1.4 Compliance and doing business in an ethical manner | 18 | | | ⊗ ⚙️ |
| 418-1 | Substantiated complaints concerning breaches of customer privacy and losses of customer data | | | | | None were brought to our attention. | ⊗ ⚙️ |
| GRI 419: Socioeconomic Compliance (2016) | | | | | | | |
| 3-3 | Management approach | | 1.4 Compliance and doing business in an ethical manner | 18 | 10 | | ⊗ |
| 419-1 | Non-compliance with laws and regulations in the social and economic area | | 1.4 Compliance and doing business in an ethical manner | 18 | 10 | Zero fines and non-monetary sanctions | ⊗ |



INDEPENDENT PRACTITIONER'S REPORT ON A LIMITED ASSURANCE ENGAGEMENT ON SUSTAINABILITY INFORMATION

To Xella International GmbH, Duisburg

We have performed a limited assurance engagement on the disclosures denoted with “☺” in the sustainability report of Xella International GmbH, Duisburg (hereinafter “the Company”), for the period from 1 January to 31 December 2022 (hereinafter the “Report”). Our engagement in this context relates solely to the disclosures denoted with the symbol “☺”.

Responsibilities of the Executive Directors

The executive directors of the Company are responsible for the preparation of the Report with reference to the principles stated in the Sustainability Reporting Standards of the Global Reporting Initiative (hereinafter the “GRI-Criteria”) and for the selection of the disclosures to be evaluated.

This responsibility of Company’s executive directors includes the selection and application of appropriate methods of sustainability reporting as well as making assumptions and estimates related to individual sustainability disclosures, which are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal controls as they have considered necessary to enable the preparation of a Report that is free from material misstatement whether due to fraud or error.

Independence and Quality Control of the Audit Firm

We have complied with the German professional provisions regarding independence as well as other ethical requirements.

Our audit firm applies the national legal requirements and professional standards – in particular the Professional Code for German

Public Auditors and German Chartered Auditors (“Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer”: “BS WP/vBP”) as well as the Standard on Quality Control 1 published by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): Requirements to quality control for audit firms (IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis - IDW QS 1) – and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Practitioner’s Responsibility

Our responsibility is to express a limited assurance conclusion on the disclosures denoted with “☺” in the Report based on the assurance engagement we have performed.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to allow us to conclude with limited assurance that nothing has come to our attention that causes us to believe that the disclosures denoted with “☺” in the Company’s

Report for the period from 1 January to 31 December 2022 have not been prepared, in all material aspects, with reference to the relevant GRI-Criteria. This does not mean that a separate conclusion is expressed on each disclosure so denoted.

In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the practitioner’s judgment.

Within the scope of our assurance engagement, we performed amongst others the following assurance procedures and further activities:

- Obtaining an understanding of the structure of the sustainability organization and of the stakeholder engagement
- Assessment of the process for conducting the materiality analysis in accordance with the GRI criteria
- Inquiries of personnel involved in the preparation of the Report regarding the preparation process, the internal control system relating to this process and selected disclosures in the Report
- Identification of the likely risks of material misstatement of the Report under consideration of the GRI-Criteria
- Analytical evaluation of selected disclosures in the Report
- Insight into the processes for collecting, controlling, analyzing and aggregating selected data at specific company locations
- Evaluation of the presentation of the selected disclosures regarding sustainability performance

Assurance Conclusion

Based on the assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the disclosures denoted with “☺” in the Company’s Report for the period from 1 January to 31 December 2022 have not been prepared, in all material aspects, with reference to the relevant GRI-Criteria.

Intended Use of the Assurance Report

We issue this report on the basis of the engagement agreed with the Company. The assurance engagement has been performed for purposes of the Company and the report is solely intended to inform the Company as to the results of the assurance engagement. The report is not intended to provide third parties with support in making (financial) decisions. Our responsibility lies solely toward the Company. We do not assume any responsibility towards third parties.

Frankfurt, 31 March 2023
PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Nicolette Behncke ppa. Nico Irrgang
Wirtschaftsprüferin
(German Public Auditor)

About this report

We have published this sustainability report to give our stakeholders an understanding of the vision and specific sustainability goals that we are pursuing. By publicizing our ambitious intentions and goals, we are also taking on an obligation to hold ourselves accountable. We want to—and must—measure ourselves by our progress.

Unless otherwise indicated, this report incorporates the activities of Xella Group, which is made of the Building Materials scope (without URSA Group which has been sold at end of May 2022 and is considered as discontinued operations) for the 2022 fiscal year (January 1 to December 31). It contains all the significant economic, environmental, and social impacts of our activities in reference to the Global Reporting Initiative's transparency standard (GRI Standards 2021) and serves as a Communication on Progress for the UN Global Compact (UNGC). Our last sustainability report was published in April 2022. In the future, this sustainability report will be updated and released annually in English.

This report contains statements about the future that are based on current assumptions and expectations. Various factors may lead to the actual results varying from the estimates presented in this document.

PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft has subjected the sections of the Report marked with a check mark in the [→ GRI content index](#) and the [→ Our 2022 highlights at a glance table](#) to a limited assurance engagement. Aspects and key figures of the following areas were audited: the process and the inclusion of stakeholders in our materiality analysis, our data-capture processes for ESG information, and management approaches and respective KPIs to energy consumption, carbon emissions (Scopes 1, 2 and 3), employee training/professional development, and occupational safety and health.

Xella International GmbH

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