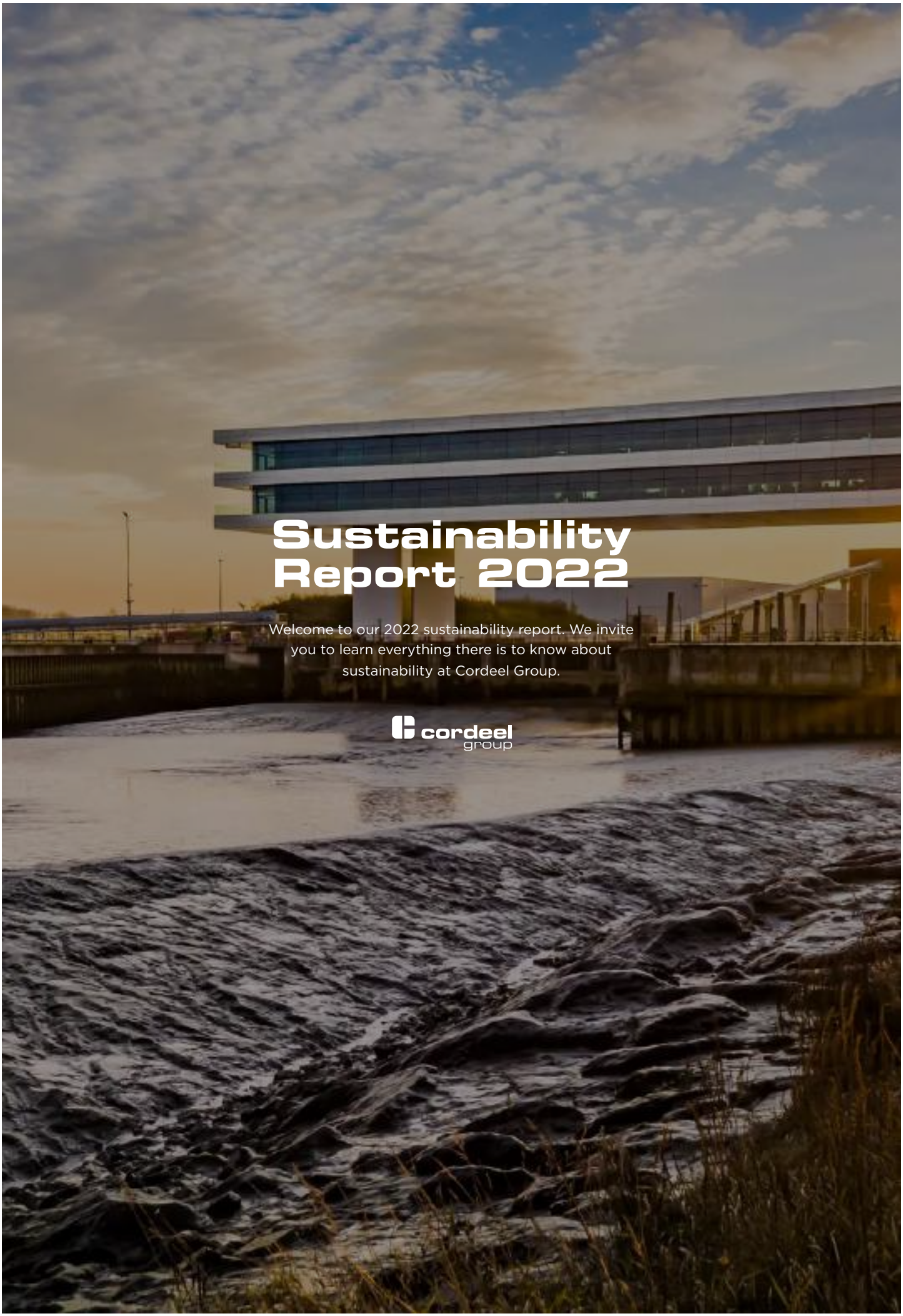

Sustainability
Report 2022
Welcome to our 2022 sustainability report. We invite you to learn everything there is to know about sustainability at Cordeel Group.
cordeel
group

About Cordeel →

Sustainability Strategy →

Key targets

Sustainability Governance

Our people →

Attract & retain talent

Personal Development

Diversity

Employee engagement

Safety

Health & Well-being

Impact on society →

Our stakeholders

Local community engagement

Sharing knowledge

Remediation of contaminated soil

Philanthropy

Sustainable buildings and products →

Decarbonisation of buildings

Accelerating the energy transition

Bio-based materials

Circular Buildings

Sustainable operations →

Reducing water consumption

Reducing waste

Reducing our carbon footprint

Digitalisation

Corporate Governance and ethical behaviour →

Codes, policies & procedures

Corporate Governance

GRI →

GRI content index

Cordeel Group

The Belgian-based, family-owned business Cordeel Group has grown to become a major European player in the construction industry since its foundation. Currently, the group oversees multiple businesses, partnerships, and joint ventures.

Your one-stop building partner – everything under one roof

Cordeel Group is much more than a construction company. It is the one-stop partner for the complete construction process. The companies that operate under the Cordeel Group banner are each highly specialised in their own field. We work together or independently **to create sustainable, future-proof solutions for our clients' complex requirements**. From this broad expertise, we take care of the complete construction process, from design and technical support to completion and maintenance.

Our strategy is **"acceleration through vertical integration"**: working together with all companies of the group gives us a competitive edge by being more streamlined, avoiding delays as we gather the expertise in the group. This helps us reach our ambition of **being Europe's fastest builder**.

We have offices in seven countries: Belgium, Netherlands, Bulgaria, Serbia, Czech Republic, Hungary & Poland, with reference projects in eight countries.

Find a video online: https://www.youtube.com/embed/p15m2CVWMXc?&controls=1

Our impact in numbers

939.36

million EUR

Total turnover in 2022

1,797

Total number of employees in 2022

45

The number of nationalities working at Cordeel Group

Cordeel Group

construct

C-construct

With its broad experience in construction services, C-construct can handle the entire construction process, from the initial idea to after-care and maintenance. In-house production guarantees quality and flexibility.

production

C-production

Our in-house production and assembly facilities for prefab concrete, reinforcement steel, metalworking, carpentry, façade cladding, and modular bathroom units, guarantee high-quality construction work and a streamlined construction process without unnecessary delays.

tech

C-tech

As smart buildings become the norm, the need for innovative technical installations is increasing. With our C-tech companies and a strong focus on tailor-made solutions and integrated project management, we are well-positioned to meet this need. We can design and instal even the most complex multi-technical installations such as HVAC, electricity, sanitary, piping, security systems and maintenance.

energy

C-energy

As an independent entity of the Cordeel Group, C-energy develops new sustainable technologies and applications that must provide an answer to the energy transition and all the challenges that this entails.

living

C-living

As the real estate division of Cordeel Group, C-living focuses on the purchase or real estate development of projects, grounds and buildings, for logistics, manufacturing and residential purposes. Within C-living, **Vita Group** is a specialist in the development, design, construction, financing, maintenance and operation of sports complexes and swimming pools in the public sector.

line

C-line

C-line is engaged in the development and marketing of innovative and sustainable products. They are the continuation of extensive R&D and innovation, both through our own C-innovation and C-energy divisions as well as through close partnerships with our partners.

Corporate Services

Our Corporate Services support all the Group's operational services in their daily activities. They enable different areas to be managed centrally at the Group level while the operational services can fully focus on their core activities. This approach has led to far-reaching efficiency improvements in our operations.

Facts & Figures

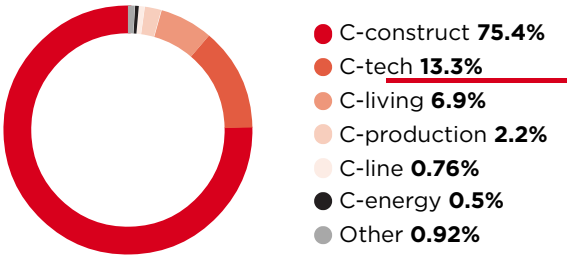
In 2022, Cordeel realised almost 940 million EUR in revenue, a testament to the company's expertise and dedication to delivering high-quality projects, achieved by its almost 1,800 employees.

939.36 million EUR

Total turnover 2022

1,797 employees

achieved these impressive figures

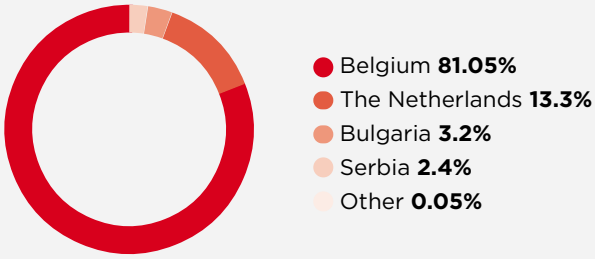


Split of turnover by activity

939.36 million EUR

Split of turnover by country

939.36 million EUR



Key risks & opportunities

This section highlights the key risks and opportunities that Cordeel Group is currently facing. Identifying and assessing these factors is crucial for developing an effective sustainability strategy to mitigate risks and capitalise on opportunities.

Key risks

Volatile energy prices

Why is this a risk?

Higher energy costs can endanger the profitability of projects, production and/or the company

Responsive action

- Extensive own production of renewable energy
- Sharing energy community approach
- C-energy's "Energy As A Service" business model

Human rights violations in supply chain

Why is this a risk?

We want to be compliant with the law and are responsible for our supply chain. Projects with human right violations might be (partially) stopped as seen in other cases in 2022 (not at Cordeel) which leads to delay of realisation and might lead to extra costs or legal consequences.

Responsive action

- Check-in at work system to monitor business partners present on site and their legal status
- Code of Conduct for business partners
- Due diligence for business partners
- Transparent collaboration with authorities
- Dedicated employee to check subcontractors on site

Disturbed supply chain

Why is this a risk?

Delay of materials can cause production or construction projects to be delayed as well, which might cause penalties.

Responsive action

- Adaptation of design
- High knowledge of the market of project leaders to find viable alternatives
- For batteries: R&D skills for adaption of models
- Dedicated purchaser fluent in the language of the country of the origin of raw material

Changing regulations

Why is this a risk?

Changing regulations might interfere with current operations causing an increase/ decrease of the project values. Possible legal consequences of not complying with regulations.

Responsive action

- Dedicated Group Sustainability Officer to follow-up changing regulations in terms of sustainability and taxonomy
- Dedicated employees for Quality, Environment & Safety for domestic regulations in their fields, with one of them being a certified European Energy Manager.

Embodied carbon

Why is this a risk?

Especially stock-noted companies are starting to define targets for the embodied carbon of their buildings. Denmark is the first country to define a maximum of embodied carbon for buildings. By not complying with this, there is the potential to lose projects in the future.

Responsive action

- Big impact on the value chain due to its own precast production and own R&D.
- The formula of precast concrete has already been adapted and the CO_2 emissions therefore reduced.
- Internal knowledge about the footprint on material is being increased.
- Discussion with project partners to reduce the impact of our buildings.

War for talent

Why is this a risk?

Without talented employees we cannot conduct business, projects and business development might get delayed. One of the biggest risks for Cordeel is not finding (suitable) talent.

Responsive action

- A dedicated and high-performing team in the talent acquisition department.
- A strong employer brand
- Our vision and mission and the investments to make them become a reality is attracting talent.
- A strong focus on improving the work environment and employee well-being.

Sustainability strategy

Cordeel Group has taken a proactive approach to sustainability, integrating it into our core values and long-term strategy.

Taking our responsibility

Our vision is to become the happiest company to work for and with, while our mission is to transform the future as the fastest builder by focusing on innovation to create smart, energy-efficient and low-carbon solutions. These ideals serve as the bedrock for our sustainability strategy, which is not a distinct strategy but rather integrated into our core operations. At Cordeel, we build homes, workplaces, and shared spaces where people can be happy. But we do much more than that.

As one of the largest construction companies in Belgium, we recognize our responsibility towards the environment and local communities. Our aim is to approach sustainability in a holistic way, balancing our company objectives with our impact on society and the environment. Through our buildings, products, and services, we aim to contribute to a better, more sustainable world.

Our sustainability strategy is built upon five pillars, each containing specific focus areas linked to programs and actions.

Accelerating energy transition

Energy monitoring | Energy storage | Energy sharing | Electrifying industry

Sustainable buildings & products

Decarbonisation | Circular buildings | Bio-based products

Sustainable operations

Water consumption | Waste reduction | CO_2 Reduction | Digitalisation

Our people

Safety | health & well-being | attract & retain talent

Impact on society

Governance | Local communities | Remediating soil | Philanthropy

Key sustainability achievements in 2022

In 2022, Cordeel Group and its subsidiary companies have accomplished some key sustainability achievements that showcase our efforts towards a more sustainable future as we strive to reduce our carbon footprint and create a better work environment for our employees.

Construction of energy hill in Temse has started

The construction of our energy hill on the premises of our headquarters in Temse started in 2022. Energy hills **utilise the potential energy of water to generate electricity**. They are a promising and innovative solution for energy storage and management, as they provide a reliable source of renewable energy that can be easily stored and used when needed. Ours is scheduled to be operative by 2024.

Mobile batteries to reduce emissions on-site

In order to replace CO_2-emitting generators on the construction sites, C-rental ordered 100 mobile construction site batteries from our subsidiary C-battery. The first battery was delivered at the end of 2022, in 2023 we will roll out the mobile batteries at scale. By replacing CO_2-emitting generators with mobile batteries, C-rental is taking a step towards a more sustainable and environmentally friendly construction industry.

Electric machinery as an alternative to diesel-powered equipment

Apart from mobile batteries, C-rental has also taken measures to reduce emissions on construction sites by investing in electric machinery. The company purchased five Volvo L25 Electric Wheel Loaders, which have the same power as a diesel-powered wheel loader, but produce no emissions. Furthermore, C-rental has integrated several electric scissor lifts and telescopic boom lifts by Zoomlion into its fleet. By using electric machinery, C-rental is not only helping to reduce the carbon footprint of the Cordeel Group and its customers, but also creating a quieter and more efficient work environment for its employees.

– 89%

Cordeel Nederland switches to renewable diesel (HVO100) for all its construction sites

Based on the consumption of fuel on-site in 2022 in litres, we reduced our carbon emissions for these fuels by 89% (compared to 2021) thanks to shifting away from standard domestic fuel oil towards HVO 100.

Ecovadis silver rating as external recognition

In 2022, Imtech achieved a silver rating from EcoVadis for its sustainability efforts, with a score of 60 out of 100 possible points. This places us on par with or above 80% of the companies evaluated on EcoVadis, reflecting our ongoing efforts to advance sustainability across the four EcoVadis pillars:

- environment
- labour & human rights
- ethics
- sustainable procurement.

EcoVadis is a global network of over 100,000 rated companies and the world's leading provider of business sustainability ratings.

Pilot case material passport

Getting insights into the materials that are built in our buildings is key for us, as we believe that buildings are material banks for the future. For Montea, we used the platform Madaster to create a material passport for one of our projects as a pilot case. More info on this project can be found here.

Code of Conduct implemented

In order to strengthen our governance we implemented a formal code of conduct in the organisation.

Hemp remediates PFAS-contaminated soils and serves as sustainable building material

C-biotech grows industrial hemp plants on PFAS-contaminated soils. The plants' deep roots absorb PFAS which is stored in the plants' leaves and heads. The stems stay pollution-free and are extremely suitable for processing into durable and strong building materials. At the end of 2022, the first harvests took place and the prospected results were confirmed by the University of Hasselt.

Shareholding in microwave technology taken to electrify industry

C-energy has taken a shareholding in MEAM, short for 'Microwave Energy Applications Management'. The Belgian company develops smart, low-carbon solutions for the electrification of various industrial processes using industrial microwave technology.

Signed agreements

C-concrete signs Flemish Concrete Agreement

The production of green and circular concrete is on the rise, but acceleration is needed. With the Flemish Concrete Agreement, the industry wants to remove administrative and technical obstacles to realise this ambition. Ambitious objectives have been set up, like the reduction of CO_2 emissions from the production of concrete by 50% by 2030.

Sustainable Development Goals

The Sustainable Development Goals of the United Nations provide a shared blueprint to achieve a more sustainable future for the planet and people. The 17 SDGs and their 169 sub-goals are a call to action to tackle the biggest challenges we face world-wide.

Cordeel and the Sustainable Development Goals

At Cordeel, we use the SDG framework as a guide for our own holistic sustainability approach. As an impact-driven construction company, we aim to go further than just reducing our carbon footprint or waste.

Although it is our ambition to address each and every SDG, we are aware that we cannot contribute to all 17 SDGs in an equal way through our processes alone. We decided to work on the SDGs to which we cannot contribute with our core business through philanthropic efforts.

The circle indicates to which degree we can contribute with our business to each of the 17 SDGs.

Materiality matrix

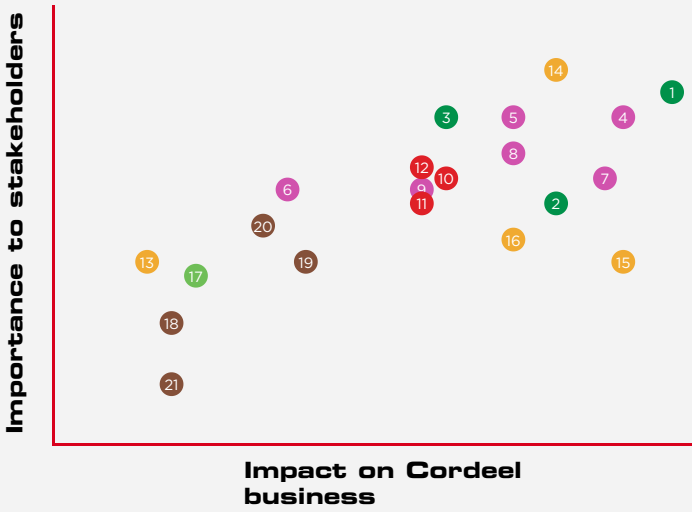
In 2022, we assessed our most material topics using a materiality matrix for the first time. It helped us to better identify and understand the importance of specific ESG topics for our stakeholders.

Methodology

We created a list of 33 ESG topics, which we compiled by analysing material topics used by ESG rating agencies and other companies in our sector. Our Sustainability Committee narrowed that list down to **21 ESG topics** that were most relevant to our business, and we grouped them into **6 categories**.

To gauge the importance of these topics, we conducted an **anonymous survey** with 90 of our most important external stakeholders (including customers, financial institutions, suppliers, cities & municipalities, social partners) and 30 internal stakeholders (senior management and Board Of Directors). Based on their knowledge of Cordeel and our industry, as well as their expectations for the future, we asked them to rate the significance of each ESG topic. The resulting materiality matrix was then validated by our Board of Directors.

Most material topics



Accelerating the energy transition

1 Energy efficiency
2 Innovation
3 Renewable energy

Governance

4 Anti-bribery
5 Ethical behavior
6 Human rights in supply chain
7 Ownership & control
8 Transparency
9 Data security

Sustainable operations

10 Waste reduction
11 Water consumption
12 Carbon emissions

Our people

13 Diversity
14 Health & safety
15 Talent attraction & retention
16 Talent development

Impact on society

17 Local community engagement

Sustainable buildings

18 Biodiversity
19 Life cycle assessment
20 Modular & circular principles
21 Smart cities

Sustainability Governance

Clearly defined roles and responsibilities make sure that we achieve our sustainability goals.

In 2021, we established a sustainability committee responsible for **defining and setting our organisation's sustainability goals**. The sustainability committee convenes quarterly to assess progress and oversee the execution of the strategy. It comprises members from diverse businesses and service centres who provide guidance to the focus groups leading our sustainability efforts and translating them into practical actions.

The focus groups, composed of multidisciplinary teams from different entities and departments, **report on their performance and progress towards the defined targets** regularly.

Annually, the Board Of Directors receives updates on the implementation progress of our sustainability strategy. They review and endorse the set targets and provide feedback on the strategy.

Members of the sustainability committee

Filip Cordeel
CEO Cordeel Group (M)

Laurence Gacoin
CEO C-energy and C-innovation (F)

Permanent representative of Nova LaGa

Erik Groes
CEO Imtech (M)

Maaike Pots
HR Director (F)

Kevin Van Hoe
QESH Manager (M)

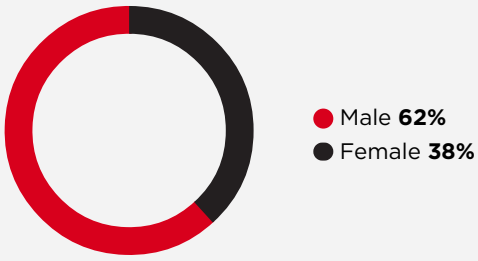
Stijn Rynwalt
Group Legal Counsel (M)

Permanent representative of BV SRL

Aurélie Cordeel
Strategic Change Manager (F)

Simon Maillet
Group Sustainability Officer (M)

Gender diversity in the sustainability committee



Employee engagement

In November 2022, we conducted an employee satisfaction survey to assess engagement levels and identify potential areas for improvement.

Key numbers

The satisfaction survey was distributed to 1,543 employees located in Belgium, with 701 employees completing it, resulting in a response rate of 45%.

All business units participated, and both blue and white-collar workers completed the survey.

87%

feels proud to work for Cordeel

77%

knows the values, mission and vision of Cordeel Group

73%

feels connected to the organisation

90%

thinks their work offers sufficient opportunities for independent thinking and action

89%

enjoys doing their job

88%

feels they are making a clear contribution to the company result

77%

thinks they have a good work-life balance

73%

thinks there's an open working climate at Cordeel Group

Key areas in which we commit to initiate improvement efforts

- Creating more togetherness within Cordeel Group: Increase the sense of togetherness within the group by having the different companies take more joint actions and, for example, launching a programme to do sports together.
- Creating a transparent talent development policy: Providing a clear overview of training courses that can be taken, having opportunities for advancement and being given sufficient opportunities and time to share knowledge and experiences with colleagues.
- Striving for open and transparent communication
- Increasing participation in the satisfaction survey

Safety

Accidents can happen quickly, especially in the construction industry. To prevent harm, safety is our first priority. We provide ongoing training to our staff, prioritise programmes aimed at enhancing safety awareness and behaviour, conduct regular workplace inspections and carefully select subcontractors who prioritise safety in their work.

Certifications & standards

The VCA safety management system provides a comprehensive approach that promotes consistency across the Cordeel companies*, with the goal of decreasing the number of incidents and accidents.

We are proud to be known for the high quality of work we provide. Each of our employees is dedicated to their work, and our QESH department strives for continuous improvement in everything we do. Our ISO 9001 quality management** system ensures a process-driven approach to all of our projects.

We train our employees to be environmentally conscious and go the extra mile in the areas of green technology, reducing our carbon footprint and social responsibility. The ISO 14001 certification*** provides a proper framework for these efforts.

**Cordeel Zetel Temse, Cordeel Zetel Hoeselt, C-metal, C-concrete, C-wood and C-rental are VCA certified.*

*** Cordeel Zetel Temse and Hoeselt, Cordeel Nederland, C-metal, C-concrete and C-wood are ISO 9001 certified.*

****Cordeel Zetel Temse and Hoeselt, Cordeel Nederland, Imtech Industry, C-metal, C-concrete and C-wood are ISO 14001 certified.*

Raising awareness

We have a proactive safety policy that is focused on prevention. Prior to beginning work, our employees always receive extra safety instructions regarding the task at hand. We carry out a last-minute risk analysis (LMRA) along with an inspection of the environment, and create a secure and healthy workplace for our own personnel and all other workers on the site. Regular toolbox meetings and the communication of our 10 lifesaving rules help to raise awareness and prevent accidents.

Replacing harmful chemicals

Exposure to harmful chemicals can cause serious health issues, including respiratory problems, skin irritation, and various other illnesses. Many harmful chemicals are toxic and can persist in the environment for long periods of time, contaminating soil and water sources and harming wildlife and ecosystems.

Replacing these chemicals with safer alternatives helps to protect the environment and its natural resources and safeguards the health and well-being of workers. We are currently collaborating with a third party to evaluate the chemicals used at each of our work sites and replace them with bio-based products, which will be safer for humans and the environment.

Safety day Temse

In 2022, we held a safety day for all companies located on the site in Temse, namely Cordeel zetel Temse, C-production and the Service Centres.

The event comprised eight different stations, where employees were educated about fire extinguishing, first aid, LMRA, well-being, cyber security risks and driving risks.

Find a video online: https://www.youtube.com/embed/KTEMUIYTA7I?&controls=1

KPIs safety

* Measurement scope: own employees.
As of 2023, we will report on subcontractor-related incidents as well

	2022*
Number of fatalities as a result of work-related injuries	0
Number and rate of recordable work-related injuries	52
Number of days lost to work-related injuries and fatalities	1395

Our stakeholders

At Cordeel, we maintain ongoing communication with our numerous stakeholders, who are greatly affected by our actions.

Identifying our stakeholders

At Cordeel, we believe that transparency builds trust and that we can learn from diverse perspectives. That is why we maintain ongoing communication with our numerous stakeholders, who are greatly affected by our actions.

As a company, we strive to set a positive example by communicating openly and welcoming constructive feedback, as we believe this helps us grow and improve.

How do we engage our stakeholders?

Stakeholder	Mode of engagement	Frequency
Customers	Creation of a long-term partnership	ongoing
	Each site has its dedicated project leader	ongoing
	Update on innovations and performance	occasionally
	Participation at events	occasionally
Employees	Operational meetings	daily scrum, weekly, monthly
	Strategic meetings	quarterly
	Culture assessment & improvement	quarterly
	Employee evaluations	annual
	Satisfaction survey	annually
	Teambuilding	annually
	Training to sharpen skills	ongoing
Industry associations	Membership meetings	occasionally
	Thematic events	occasionally
	One-to-one meeting	occasionally
Financial institutions	Direct contact with account managers	regularly
	Events	occasionally
	Meeting with management (roadshow)	annually
	Update on financial performance	bi-annually
Suppliers & subcontractors	Evaluation of cooperation	yearly
	Ratings	project-based
	Contacts to improve long-term partnership	ongoing
Cities & municipalities	Sharing knowledge	occasionally
	Contributing in local initiatives and think thanks	occasionally
	Transparant project-related communications	ongoing
Social partners	Updates on company performance and topics related to employees	monthly
Authorities	Certifications & audits	annually
	Project-related: transparant communication	ongoing

Stakeholder	Mode of engagement	Frequency
NGOs	Support and membership in initiatives	occasionally
	Communication via various channels (online, press releases)	ongoing
Society	Communication via various channels (online, press releases)	ongoing
	Partnerships with schools and universities	ongoing
	Construction sites contact details	ongoing

Local community engagement

As a construction company, we recognise that we have an impact on the areas we're working in. During the construction phase, there may be noise and other inconveniences that can affect the neighbours. To promote positive relationships, we prioritise open communication. In the future, we are committed to further strengthening these relationships by sponsoring initiatives aimed at improving our engagement with the community. Additionally, we are actively working towards electrifying our construction sites to minimise any negative local impact. We also support local organisations and proactively engage with municipalities and cities. We do this to gain a better understanding of their needs and visions for the future, as we believe this is crucial to fostering mutual respect and positive outcomes for all involved.

The opening of our construction sites to the public

Throughout 2022, we opened our construction sites to the public in both Belgium and the Netherlands, providing a unique opportunity for community members to view ongoing projects in their neighbourhoods. Over 900 visitors took advantage of these open days, gaining insights into our innovative constructions methods and practices.

One noteworthy occasion was the “Open Wervendag” (Open Sites Day) held in May, during which over 200 people visited our Living Tomorrow site in Vilvoorde. Amongst the attendees were Flemish Minister for Mobility and Public Works Lydia Peeters and Embuild Vlaanderen Director-General Marc Dillen. Visitors were able to witness first-hand how we are incorporating smarter, more sustainable and safer construction techniques into our work. C-energy and C-battery showcased some of their innovative solutions, including our mobile construction site battery.

Find a video online: https://www.youtube.com/embed/daBwVzujZtw?

Sharing knowledge

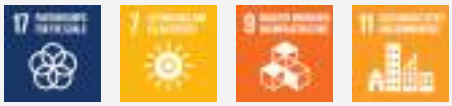
We are happy to share our expertise on sustainable construction and the energy transition. At our headquarters in Temse, we hosted over 400 visitors to show them our state-of-the-art production facilities and innovative products in the showroom.

Green Deal Circulair Bouwen

Cordeel is committed to sharing practical experiences with other construction companies, construction material producers, local and regional authorities, private developers, researchers and other organisations in the learning network ‘Green Deal Circulair Bouwen’. Through collaborative experimentation, we aim to test circular principles in practice and uncover any bottlenecks. Cordeel Temse has joined the Green Deal Circular Building initiative and used the renovation of the Multi project located in Brussels as their pilot project for the initiative.

Flux50

Flux50 fosters collaboration across the energy, IT and building sectors to enhance the competitiveness of the Flemish smart energy industry during the transition to low-carbon systems. As a member of Flux50, Cordeel plays a central role in the energy field. We are involved in two Flux50 projects: Cordeel Business Park 4.0 and City Poles.



Keynotes and debates

Our colleagues regularly participate in events as keynotes speakers and panellists. At the Reality Belgium forum on 'Soaring Energy Costs and the Impact on the Real Estate Market', Laurence Gacoin (CEO C-Energy) shared her insights on how sustainable building solutions can contribute to a sustainable energy policy.

Industry associations and organisations

- Smart Buildings In Use
- Embuild
- Duurzaam Gebouwd
- PropTech
- CO_2-prestatieladder
- TWEED (Technologie Wallonne Energie – Environnement et Développement durable)
- Belesco
- ADEB-VBA
- VOKA
- EV Belgium
- Waterstof net
- Flux 50

Remediation of contaminated soil

Remediating contaminated soil helps providing communities with more healthy nature.

Hemp is able to remediate PFAS-contaminated soil

PFAS contamination is a major environmental challenge in the Belgian region of Flanders, as well as in many other regions. The conventional method of remediation involves excavating the soil and transporting it to specialised facilities, which function like washing machines. While effective, this process is costly and has the negative side effect of removing the majority of nutrients from the soil making it unusable for farmers.

In collaboration with the University of Hasselt, C-biotech undertook in-depth research on bio-based remediation methods, specifically using hemp. The research shows that **hemp roots absorb PFAS and nitrate** and store them in the plant's leaves and heads. The stems of the plant remain pollution-free and can be processed into durable and strong building materials.

The growing process of hemp is **very ecological**: the crops require minimal water and pesticide use, and can be harvested up to three times a year. Besides their purifying effect, hemp roots bring oxygen back into the soil and create space for water to penetrate deeper into the ground. Hemp plants also remove CO2 from the air.

C-biotech plans to grow industrial hemp on more than 30 hectares of land in 2023, in collaboration with cities and municipalities, private companies and project developers. We're actively engaging with various stakeholders to expand the surface area for industrial hemp cultivation.

Remediating heavily contaminated soil with microwaves

C-ground is utilising an eight-hectares water-bound facility in Zutendaal to store and remediate contaminated soil. Through the use of MEAM's microwave technology, a new, 100% electric treatment method is being developed to remove organic pollutants, including mercury from heavily contaminated soils.

Find a video online: https://reports.cordeel.eu/wp-content/uploads/2023/03/baros2a15_meam_def-1080p-2.mp4

Philanthropy

We are aware that our impact and responsibilities extend far beyond our core business. By giving back to communities in need and the environment, we demonstrate our commitment to making a positive impact.

River Cleanup

In partnership with River Cleanup, we organised a clean-up event at our Temse headquarters in August. River Cleanup is a global network organisation that aims to prevent plastic from reaching our oceans by cleaning rivers, promoting behavioural change, and transforming organisations.

As our headquarters is located along the Scheldt river, the clean-up event was an excellent opportunity to raise awareness about plastic pollution. A total of 35 employees of different Cordeel companies attended the clean-up and collected 240 kilograms of waste.

Toy fundraiser

In December, we organised a fundraiser to collect toys for children and families in need across various branches of the Cordeel Group. We donated the toys to local organisations in Temse, Drechtsteden and Bilzen.

Going the extra mile

In 2022, our team went the extra mile—quite literally—for charity:

- A group of 18 employees from Eletrotechniek van Hecke pledged to donate money for every kilometre they cycled to work, with the proceeds (**508 EUR**) going to the NGO Hartekamp.
- In May, 78 employees from different entities within the Cordeel group, joined the 'Roze Mars' event collectively walking a total of **14,500 kilometres** (equivalent to 18,394,420 steps) to support Pink Ribbon, an organisation dedicated to fighting breast cancer. Together, these 78 employees donated **921 EUR to Pink Ribbon**.

16 employees from Cordeel Nederland joined the Delta Ride for the Roses 'Midden-Zeeland', a cycling event aimed at promoting a world with fewer cases of cancer, more treatments, and a better quality of life for people affected by the disease. The employees were able to raise 2,500 EUR for charity.

1,328 EUR

We collected a sum of 1,328 EUR through an internal year-end raffle. The raised funds were donated to 'De Warmste Week', which is an annual solidarity campaign organised by VRT, the Belgian national public-service broadcaster, in the week leading up to Christmas. The campaign's goal for this year was to help underprivileged people.

Decarbonisation of buildings

Buildings have a significant impact on global greenhouse gas emissions and play a major role in contributing to climate change. According to the International Energy Agency (IEA), the building sector accounted for 39% of global CO2 emissions in 2019. The energy used for heating, cooling, lighting, and powering appliances in buildings is the primary source of these emissions. Apart from operational carbon emissions, embodied carbon emissions from the production of building materials, construction, and demolition also contribute to the building sector's carbon footprint. For instance, the production of cement, a key ingredient in concrete, is responsible for approximately 7% of global CO2 emissions.

39%

of global CO2 emissions were accounted for by the building sector in 2019

7%

of global CO2 emissions are attributed to the production of cement

Considering the growing demand for energy in buildings and the expansion of the building sector, it is crucial to reduce its carbon footprint. This can be achieved through the implementation of **energy-efficient technologies**, the use of **low-carbon building materials**, and the adoption of **renewable energy sources**. At Cordeel, we are aware of the challenge and see the many opportunities and devolved several solutions to tackle the problem.

Source image.

Measuring the carbon footprint of our building

We believe that buildings are material banks for the future.

As one of the first Belgian companies, we have incorporated **Madaster** to create material passports for our projects. By registering building materials on the platform, we can automatically create **a unique material passport for each building**. This passport shows comprehensive information about the materials and products used, their impact on circularity and the environment, and the potential residual value they hold.

With this transparent tool, we can evaluate the sustainability and suitability of certain materials and assess their impact on the building.

Our goal is to create a material passport for every building with a BIM model by 2024. In 2023, we will train more of our colleagues to use the platform effectively and accelerate our efforts towards achieving this objective.


Mass
22.75 kt
Circularity
51 %
Detachability
74 %
Embodied Carbon (GWP)
5.3 kt
CO_2e

Decreasing the embodied carbon of our buildings

Embodied carbon refers to greenhouse gas emissions generated during the production of building materials and construction including transportation and disposal. This carbon is essentially stored within the building materials and is released throughout their lifecycle. Embodied carbon is an important factor to consider for sustainable building practices, as it accounts for a significant portion of a building's overall carbon footprint.

At Cordeel, we are committed to reducing the embodied carbon of our buildings. By carefully selecting durable and sustainable materials, we build future-proof constructions for our customers. Parts of the industrial buildings we realise are built with wooden beams. Another important approach is the usage of substitute cementicious materials (SCMs) in our green concrete's composition

Green concrete

Green concrete

Structural components like columns, beams, walls and floors have a significant impact on the embodied carbon of buildings. We aim to industrialise the building process as much as possible and use concrete precast elements for structural components, prefabricated by C-concrete.

In 2018, C-concrete used 70% CEM I and 30% CEM III cement for our precast concrete elements. CEM I contains 100% cement clinkers which results in significant CO_2 emissions. To reduce these emissions, we made it a top priority to reduce the cement clinker level in the cement compositions that we use at C-concrete.

Over the past three years, we have conducted intensive research and testing to develop alternative concrete mix formulas that minimise the use of cement. Our aim is to reduce the use of cement, which is responsible for 7% of the global CO_2-emissions, as much as possible.

“When we talk about ‘green concrete’, we focus on reducing the amount of cement – and therefore the embodied carbon – in our precast elements as much as possible.”

This is no fixed recipe, but a continuous improvement and commitment to keep lowering our embodied carbon in our concrete end-products.

Green concrete

In 2022, we successfully produced precast elements with CEM III as the main cement type, which led to a significant reduction in embodied carbon emissions.

Compared with the concrete mix applied in 2018, we reduced the CO2-emissions of our precast elements produced by C-concrete with over 650 tons in 2022 (-7.4%).

Our current standard formula is still within the BENOR norm, which gives us a competitive edge in the market. In 2023 we will continue to adapt this formula, to decrease the amount of cement clincker even further.

In 2022, we also achieved a major R&D milestone by producing precast elements completely cement-free. However, due to the lack of normative regulations for this type of concrete, it is challenging to use it in our standard buildings. Nonetheless, we have tested the performance of the elements and will continue to improve the product.

We continue to reduce cement content by using alternative binders, substitute materials, additives, particle size optimizations, etc. and continuously adapting the formula of the concrete we use. Our granulate recycling installation also helps us to recover the granulates from our excessive unhardened concrete, thus reducing our concrete waste and the loss for virgin materials. Additionally, we're optimising the local use of secondary sands and aggregates to reduce transport emissions.

In Q1 of 2023, we will install a new silo for blast furnace slags from the metal industry, which will accelerate the production of greener precast elements. Blast Furnace slags are recycled raw materials that are used to substitute cement clinker, thus help to reduce the embodied carbon in our concrete mixtures, towards a CO2-free future.

Signing the Flemish Concrete Agreement

Signing the Flemish Concrete Agreement

We are proud to be one of the signatories of the Flemish Concrete Agreement, which aligns with Cordeel Group's sustainability strategy. The Agreement is supported by a wide range of stakeholders including contractors, concrete producers, demolishers, associations, study offices, research centres and government organisations.

The Flemish Concrete Agreement sets ambitious targets for the reduction of CO_2-eq emissions from concrete:

- By 2030:
  - 50% reduction in CO_2-eq emissions from concrete applied in the Flemish Region compared to 1990 emissions.
  - the design of buildings should provide that concrete elements can be maximally reused or that the functions in the building can be maximally adapted.
  - No more substances will be present in buildings that prevent recycling.
  - Concrete released from demolition whose quality is suitable for the production of high-quality concrete aggregates reused in ready-mixed concrete, road concrete and/or precast concrete.
- By 2050:
  - Zero CO_2 emission per m^3 of concrete used in the Flemish Region

Decreasing the operational carbon of buildings

Operational carbon refers to the greenhouse gas emissions produced by the energy used to power a building's systems, including heating, cooling, lighting, and appliances.

As part of our commitment to reducing the carbon footprint of our customers' buildings, we recognise the importance of mitigating climate change by decreasing the energy consumption in existing buildings. While our new builds are already fossil-free, we see a significant opportunity to make a positive impact by renovating older buildings that tend to consume large amounts of energy. By taking steps to reduce operational carbon, we can help our customers achieve greater sustainability and contribute to a more environmentally responsible future.

Efficient and sustainable techniques

The main purpose of a HVAC system is to maintain a healthy indoor air quality through adequate ventilation with filtration whilst providing thermal comfort. However, HVAC systems are among the biggest energy consumers in a building.

To address this, we can implement efficient heating, ventilation and air-conditioning solutions that rely on renewable energy sources and low GWP ('global warming potential') air-conditioning systems. These measures can significantly reduce the operational carbon emissions of buildings. For instance, the new Imtech Naninne office building will be equipped with a CO_2-heat pump with a low GWP and low operational costs.

Case

Energetic renovation of Buildwise

Imtech was responsible for the HVAC installation and controls of the new Buildwise building in Zaventem, which replaced the outdated site. The project aimed to transform the existing building into **the most sustainable and energy-efficient office building possible,** taking into account both user comfort and the available budget.

The **HVAC** was updated by replacing the existing gas boiler with a fully geothermal concept with BEO field (borehole energy storage), heat pumps and a plate heat exchanger for passive cooling. This four-pipe system distributes both heat and cold throughout the building, which is delivered to the various rooms via new climate ceilings. The existing ventilation system, with a pulse group in the basement and an extraction group on the roof, was replaced by three air groups connected to the geothermal system with heat recovery.

Case

First climate-neutral building within the Port of Antwerp-Bruges

Imtech was tasked with implementing a new **primary heat generating system** for the service building located at Kallosluis, which is part of Port of Antwerp-Bruges.

The new heat-generating system is based on heat pumps and is expected to **reduce CO_2 emissions by 170 tonnes per year**. Additionally, the new installation is estimated to achieve an impressive **energy reduction of 50%** compared to the reference year of 2019. To further promote sustainability, the service building has purchased 100% green power and installed solar panels. Furthermore, a hydro turbine has been installed in the lock to generate additional power.

As a result of these efforts, the service building is the first climate-neutral building to undergo this transition as part of the Port of Antwerp-Bruges ‘fit for 55’ objective.

Maintenance

Imtech Maintenance is responsible for maintaining the technical installations under contract. Regular maintenance plays a crucial role in promoting energy efficiency, extending the lifespan of equipment, facilitating upgrades and retrofits and curbing emissions. This is particularly important for air-conditioning systems, where leaks can have a significant impact on CO_2emissions.

Accelerating the energy transition

C-energy strives to develop new sustainable technologies and applications that provide solutions to the challenges and opportunities presented by the energy transition. Our comprehensive range of solutions covers all aspects of energy management, including energy monitoring, storage, optimisation and trading. By adopting our solutions, our customers can pioneer new approaches to the continuously changing energy landscape, reduce their operational carbon and be at the forefront of sustainable energy.

Energy monitoring

Developed from the idea ‘to measure is to know’, C-scan is an integrated building monitoring system that goes beyond tracking water and energy usage., C-scan also keeps an eye on vital health and safety indicators for building occupants and staff. C-scan monitors:

- water consumption
- energy consumption
- indoor air quality (CO_2 concentration, particulate matter, ...)
- temperature range
- humidity
- light intensity
- water leaks
- indoor movement

Through the analysis of this data, we can offer more sustainable solutions and implement energy-saving measures, leading to a significant reduction in energy consumption and ultimately reducing the carbon footprint of the building.

Energy storage

Energy storage will play a vital role in any future-proof energy management strategy. Battery technology can help optimise the use of renewable energy sources by matching our customer's energy consumption with their energy production.

Optimising energy related costs

Our AI-driven peak shaving system can assist organisations in determining and controlling their maximum peak load. This will help minimise consumption spikes in consumption and optimise grid usage costs.

Additionally, our AI-powered energy trading system can automatically purchase and sell energy at the most profitable time, optimising energy-related costs.

Risk mitigation

The production of renewable energy sources can be rather unpredictable. A solid battery storage solution helps to get the most out of renewable energy sources and protects organisations against power spikes and eventual power outages.

Balancing the grid

Due to the growing number of electric vehicles and decentralised power generation solutions being used, grid stabilisation is a key energy challenge. Energy storage solutions can aid in balancing energy production and consumption.

Lithium-Ion

Lithium-Ion is the most common Energy Storage System currently on the market. Our subsidiary C-battery is an expert in producing both mobile and stationary batteries using Lithium-Ion technology.

The main advantages of our Lithium-ion battery are:

- Stationary and mobile solutions for indoor and outdoor usage
- Small footprint and high energy density
- Integrated fire protection
- Designed to be environmentally responsible and to minimise waste across their entire lifecycle
- Ideal for trading, auto-consumption, peak shaving, backup power

Capacity**: from 5 kWh to 3 MWh**

Find a video online: https://www.youtube.com/embed/o65U1URT3QE?&controls=1

Vanadium Redox Flow Battery

C-energy has a profound understanding and knowledge about Redox Flow Batteries.

A Redox Flow battery consists of a stack that determines the battery power (W) and storage of electrolytes that secures the battery capacity (Wh). The active component in the electrolyte is Vanadium.

Decoupling power and capacity make this type of battery particularly well-suited for storing and releasing energy from renewable sources such as wind and solar farms. Additionally, Redox Flow batteries offer many benefits in industrial applications.

Compared to lithium-ion batteries, they have a significantly lower cost per cycle and a longer life span of up to 25 years. The mining process for the basic raw material is more secure in the long term since the material is more abundantly available in the earth's crust than lithium. Redox Flow batteries can be recycled more easily and, in terms of safety, there is no risk of fire.

The only downside is that these types of batteries need more space, but this can be flexibly designed to suit the application.

Capacity: from 10kW to multi-MW systems

Hydrogen battery (electrolysing)

The principle of a hydrogen battery is very simple. The battery uses the surplus of energy from renewable sources to power electrolysis, which separates water into hydrogen and oxygen. The system stores that hydrogen and converts it into renewable energy whenever needed.

The main advantages of a hydrogen battery are:

- Zero greenhouse gas emissions when combined with a renewable energy source
- Long service life
- Long-term storage
- Very scalable solution
- Off-grid power potential (for instance to be used on construction sites)

Capacity**: from 300kW to multi-MW systems**

C-energy and Cordeel are setting up this supply chain in Temse, starting from local renewable power (PV), electric battery storage, electrolysis, hydrogen storage, hydrogen compression in a refuelling station in order to power up hydrogen cars. The refuelling station is already in operation, the next step is to install the other elements.

The picture shown is a render of the to be implemented installation in Temse.

Energy hills

Our patented Energy Hills are powerful hydro batteries that function as both energy assets and ecological landmarks.

This concept is highly versatile, suitable for developing open land plots, as well as (re)developing brownfields, (abandoned) industrial sites or historic landfill locations. A water-bound site is preferred to enable waterways for transport, minimising the need for trucking.

How does it work?

We construct a green hill with an altitude of up to 40 metres, with a water basin placed on top of that hill. The interconnected basins – on top of the hill and at the bottom – form a closed circuit to limit the impact on local surface water or groundwater dynamics.

Excessive renewable energy or imbalances on the electricity grid, are used to pump up water and store it in the basin on top of the hill as potential energy. This energy can be converted into hydroelectricity as needed.

The final design of each hill is adapted to fit in with the local fauna and flora, creating an integrated ecological habitat that blends in perfectly with its surroundings.

Pilot Project in Temse

Construction has been underway at our Innovation Campus in Temse since June 2022. The hill is growing daily and is expected to be completed in 2024.

We have three more permits for energy hills in the final phase, one of which will be located on the C-ground site in Zutendaal.

Some key facts on the hill in Temse:

- Difference in height: 21m
- Capacity: 3,000 m³ of water / 0.17 MWh
- Turbine power of 170 kW
- 85 MWh annual capacity

Energy sharing

Net-zero operations need community energy management

To create a passionate CO_2-free future, it's essential to power all kinds of sites with local renewable energy, no matter how complex. In today's power-driven world, powering a complex site with a low-cost, locally controllable energy supply is a competitive advantage.

However, installing renewables on-site can present new problems for operators. Unmanaged solar panels and turbines can lead to power surges that damage infrastructure, negating any potential energy savings. This operational and financial risk is discouraging sites from transitioning to net-zero on-site generation.

Cordeel's solution is the Community Energy System (CES). The CES designs and connects a site's energy generation and consumption into a smart local community of solar panels, batteries, smart metres and more. The system automatically promotes operational safety and energy savings.

Cordeel is leading community energy systems development in Europe

To meet Europe's needs and advance Community Energy Systems, Cordeel has taken the lead role in the Horizon Europe-funded project CREATORS. We are coordinating with experts in monitoring and simulation (I.LECO), emulation for digital twins (Typhoon HIL), and financing (ep group), to develop the next generation of on-site energy communities for CO_2-free energy management.

Starting in 2020 and ending in 2024, the partnership will support 20 energy communities in over 10 countries across Europe.

Demonstrating the future of energy management in Temse

To improve our understanding of community energy systems, Cordeel has turned its headquarters in Temse into an operational site to showcase a CES. The “De Zaat” CES in Temse will interconnect and coordinate the following:

- 2 MWp of rooftop ePV
- 1,5 MWh of planned battery storage
- A Hydrogen electrolyser to fuel Cordeel’s fleet of hydrogen fuel cell vehicles
- Vehicle-to-Grid (V2G) storage through Cordeel’s electric and Hydrogen vehicle fleet
- Pumped hydro through Cordeel’s patented Energy Hill

By implementing this installation, Cordeel will achieve a self-consumption rate of 70% for the community, resulting in a significant reduction in dependence on the external energy markets.

Bringing Community Energy Systems to our clients

Through its participation in CREATORS, Cordeel has positioned its C-energy division to offer community energy management through Energy as a Service. By requiring only a limited upfront investment, this support will make net-zero site operations accessible to complex sites across Europe.

Electrification of industrial processes

Sustainable and fast heating technology

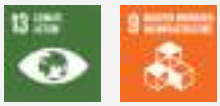
MEAM, which stands for 'Microwave Energy Applications Management', specialises in developing smart and low-carbon solutions for the electrification of various industrial processes such as heating, drying and pasteurisation. Industrial microwave technology can successfully heat suitable materials directly to the core without transfer losses or the need for heat transport mediums like air or steam.

This microwave technology aligns with our vision of the future, as it allows for the electrification of gas-driven heating processes, making energy transfer more efficient and faster while simultaneously reducing and even eliminating on-site emissions of CO_2, NO_2 and SO_2.

Moreover, the technology offers additional advantages such as the elimination of warm-up time and requiring less floor, making it more cost-effective to implement in terms of OPEX.

Stable energy supply

In 2022, C-energy acquired a stake in MEAM. Through our close partnership with MEAM, we are able to offer solutions that guarantee a dependable energy supply for their microwave installations and provide our clients with essential expertise and guidance during their transition period.



Find a video online: https://reports.cordeel.eu/wp-content/uploads/2023/03/baros2a15_meam_def-1080p-1.mp4

Vision, mission & values

As a family business, Cordeel wants to build strategic continuity for the next generation by making a positive contribution to the development of our world. We do our job smarter, more environment-friendly, and faster.

Vision

The happiest company to work for/with

We are committed to creating an environment where our employees are at their best and can grow while providing our customers with the best possible service. First and foremost, we want happy employees who in turn create happy customers.

We want our company to be a happy place, where people are inspired and come to work full of energy, enthusiasm and commitment. A place where every employee can experience a challenging professional career full of opportunities to grow and develop.

A place where employees feel valued and engaged and thus stay motivated all the time. A place that promotes both physical and mental health and where everyone is happy.

- We recognise our most valuable assets, our employees.
- We are committed to making a positive impact on the future.
- We create a safe and sustainable working environment.
- We focus on training and personal development.

Mission

Transforming the future as the fastest builder by focusing on innovation to create smart, energy-efficient and low-carbon solutions.

As a family business, we want to ensure strategic continuity for the next generation. We want to do meaningful business by making a positive contribution to the development of our world and contributing to a sustainable future with surprising innovations.

We continuously invest in the latest technologies, efficient energy solutions, materials and processes and we promote a culture of continuous improvement.

Moreover, we believe that building for the future means designing with flexibility in mind.

By working with like-minded partners, we ensure seamless project execution and strive to exceed our clients' expectations, while accelerating the transition to a cleaner and healthier future.

Values

None of us is as smart as all of us

We rely on a joint effort by bringing together different individual competencies to find the best solution and create happy customers through collaboration.

Transparency builds trust

We strive to be open, honest, and straightforward about our company operations and results to keep our employees, customers and stakeholders informed and involved.

Focus to accelerate

By working faster, smarter and with a clear focus, we want to deliver qualitative and on-time results and become the preferred partner for everyone who cares about sustainable building.

Be better every day

Good is not enough. We are dedicated to challenging ourselves every day and making continuous improvements that benefit the personal growth of our employees, the planet and the customer.

Can’t is not an option

With an open mind and a passion for innovation, we strive to build the future and find solutions for even the most difficult challenges.

Own the problem

Every problem holds the seed of its own solution. By taking ownership, we create an opportunity to learn in order to do better next time. We respond to every situation by looking for ways we can handle it, rather than saying it can’t be done.

Why is sustainability at the core of what we do?

In this section, we can learn directly from our CEO, **Filip Cordeel**, about our sustainability journey, the impact it has had on our business, and the challenges and opportunities that lie ahead.

Why is it important for us as a company to have a sustainability strategy?

Sustainability is not a stand-alone strategy, it is linked with the vision, mission and strategy of the Cordeel group. It is **at the core of what we do**. With a holistic sustainability strategy, we show that we are aware of the responsibility we have as a company and that we actively contribute to a better world.

I believe that investing in sustainability increases employee engagement, as employees take pride in working for a company that is committed to sustainability. This, in turn, increases motivation, leading to higher productivity and lower turnover of employees. In the long run, adopting sustainability practices will also save costs by reducing waste, energy, water and the use of sustainable materials.

We feel that the awareness of sustainability among our customers and governments is increasing. The **Corporate Sustainability Reporting Directive (CSRD)** and the EU taxonomy are important upcoming legislations to promote and define sustainability.

Although applicable to Cordeel only from the reporting year 2025, we are actively working on aligning with them earlier, as we know that this is important for many of our customers and we want to provide them with future-proof buildings, products and services.

Buildings have a big impact on global CO_2 emissions. How do you see Cordeel's role in it?

As one of the major players in the Belgian construction sector, we have a crucial role in reducing CO_2 emissions. By **choosing sustainable materials** like green concrete, energy-efficient designs and efficient construction management, we can contribute to a more sustainable future.

Implementing **renewable energy solutions** in our buildings, combined with an **Energy-as-a-Service** approach and energy-efficient HVAC techniques can help reduce the carbon footprint in the operational phase.

Reducing construction waste is crucial for us and we aim to achieve this through smart design, efficient construction processes and recycling and reusing materials.

We are committed to researching and developing innovative technologies and building methods that reduce the CO_2 footprint of our buildings and our operations, making sustained investments in this area.

By sharing our knowledge, we inform our partners about sustainable buildings and help them make different choices.

At Cordeel, we are strongly committed to innovation. Which highlights can we expect in 2023?

In 2023, the Cordeel Group will – once again – **prioritise innovation and sustainability**. We plan to instal an electrolyser at our headquarters in Temse to produce green hydrogen. We will also continue to work on the energy hill there.

We hope to receive our first shipment of industrial hemp products, for which we're currently undergoing research and testing. We have already introduced fluorine-free fire extinguishers and will accelerate the R&D efforts to develop more biological products for fire suppression, eliminating the need for PFAS.

Furthermore, we will start the tests for Art Couper, our innovative approach to concrete building and work on charging poles made from biocomposites.

An important milestone will be our adapted, faster C-fast system, which enables disassembly, reduces waste and accelerates on-site execution

We want to become the fastest builder. How do we approach that?

Apart from the innovative technologies mentioned, such as our adapted C-fast system and increasing modular construction, we believe in standardising our construction processes, improving supply chain management and assembling a well-tuned team of talented professionals.

Construction has a very diverse and complex supply chain, which is prone to delays and delivery bottlenecks. We strive to **maximise vertical integration** within our Group's many companies.

We already incorporated building precast into our business a long time ago, enabling us to transfer the construction process to a weather-independent factory and reduce on-site construction time. However, we recognise the need to continue innovating, and refining the processes rather than relying solely on the advantages that we have built up in the past.

Lastly, we want to continue to **attract talented people**, who like to think and work on smart and fast construction systems.

As a family business, we entered our fourth generation in 2022. What is the advantage of a family business and how important is it for you to create a long-term impact?

By investing in sustainability, e.g. by reducing our ecological footprint and creating a positive impact on society, we as a family business can make a meaningful impact.

Operating sustainably means **looking at the long-term consequences of decisions** taken on a financial and social level. We want to continue creating a healthy business that guarantees continuity and stability for its employees and business partners.

There is often a strong commitment with family-owned companies, as the family is strongly involved in business operations. **Faster decision-making** is an additional advantage of family-owned companies and is also true for us.

I would also say that family companies have a strong corporate culture, which helps attract talented employees. It's my role to preserve the heritage and values of the family business.

Our vision is to become “the happiest company to work for/with”. Can you explain more about it?

This vision contributes to a positive and sustainable corporate culture where the **well-being of our employees is central** and relationships with customers and suppliers are built on trust, respect and mutual success.

To make this vision a reality, our employees need to feel valued and engaged. This can be achieved through a healthy work environment, personal development opportunities, a good work-life balance, fair working conditions and open communication.

For us, it is crucial to work with customers and suppliers that share our vision. We are focusing on creating positive relationships, so it is important for us how we collaborate and whether our business partners treat our employees with respect. We like working together with ambitious customers who push us, as this can help us improve and grow.

Our suppliers and subcontractors can make a positive contribution too by operating sustainably, adopting ethically responsible practices and providing high-quality products and services.

Key targets

To make our mission of "transforming the future as the fastest builder by focusing on innovation to create smart, energy-efficient and low-carbon solutions" more tangible, we defined a number of concrete, shorter-term targets to follow up. In this way, we try to be as transparent as possible in our efforts and impact and will report on these ongoing actions in the next reports.

Circular buildings

materiality: modular & circular principles, innovation, carbon emissions

Goal	Deadline
Ambition: No demolition without urban mining of materials	2023
Bio-based materials - Conduct research where bio-based materials can be best applied, striving to commit to a target in our next report	2023
Reuse of materials - Conduct research where and how reused materials can be best applied, striving to commit to a target in our next report	2023
Every building with a BIM model has a material passport	2024

CO_2

materiality: carbon emissions

Goal	Deadline
100% green electricity for all locations	2023
Roll-out mobile battery containers on construction sites	2023
Report on scope 1 & 2 of complete Cordeel group (reporting year 2023)	2023
Report on the three most material scope 3 emissions (reporting year 2023)	2023
Ambition: Receive certification for CO2-prestatieladder level 5	2024
Report on scope 1-3 of complete Cordeel group (reporting year 2025)	2025
Ambition: CO2-neutrality scope 1 & 2 with reduction of at least 75% (compared with base year 2022)	2027
Ambition: Decrease the CO2 emissions of prefab concrete with 50% (compared to base year 2018)	2030

Water

Materiality: water consumption

Goal	Deadline
Monitor group-wide ground-water withdrawal and consumption of water on construction sites	2023
0% of pumped water from construction pits discharged into the sewer. Focus on reuse of water (return drainage or making it available for agriculture or citizens)	2026

Waste

materiality: waste reduction

Goal	Deadline
Increase our insights in the final processing of waste	2023
Increase the share of waste being reused or recycled by 10%	2023
Ambition: Zero-waste-production of production companies	2026

Land-use of our developments & biodiversity

Goal	Deadline
Started measuring the land-use of own developments: three projects started with a surface of 3,420 m² (footprint of buildings + outdoor pavings)	2022
Continue measuring our land-use and conduct research to find an approach to land-use and biodiversity protection/restoration, striving to commit to a target in our next report	2023

Governance

materiality: ethical behaviour, anti-bribery, human rights in supply chain

Ambition

Zero ethical breaches

Safety

materiality: health & safety

Ambition

Zero lost-time incidents

Attract & retain talent

Attracting and retaining talent is critical for Cordeel because it helps to build a strong and capable workforce that is essential for meeting the challenges of today's business environment and achieving long-term success. The aim of "transforming the future as the fastest builder by focusing on innovation to create smart, energy-efficient and low-carbon solutions" and our investments towards achieving this goal have become a significant draw for talented individuals. Both new and seasoned professionals alike have expressed that our company's strategy is a compelling reason for them to choose us as their employer.

	2022
Total number and rate of new employee hires during the reporting period	328
Total number and rate of employee turnover during the reporting period	15%
Net job growth Belgium	4.7%

*** Numbers for Belgium**

Collaboration with schools and universities

To promote and raise awareness for our work at Cordeel, we partner with schools and universities at a national level. In 2022, we hosted 50 internships and collaborated with several students on their bachelor's, master's and PhD theses.

Among the universities we collaborate with are UAntwerpen, UGent, UHasselt and KU Leuven.

Dual Learning

It is becoming increasingly challenging for schools to keep up with technological advancements in the workplace. The fundamental technological competencies that students acquire in school are often insufficient to be immediately applied in a company setting. As a learning organization, we want to make our experience and expertise available to schools and students to address this issue.

Through a dual learning program, the student is given the opportunity to familiarize themselves with the work environment in a comfortable manner, allowing them time and space to integrate and learn.

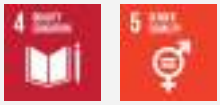
In this way, the student can expand their knowledge in a realistic yet protected work environment.

Youca action Day

In October, as part of the YOUCA Action Day, 12 secondary school students worked in various companies within the Cordeel Group. Along with over 14,000 other students, they swapped their classroom desks to work for a day to support charity. The wages they earned have been entirely donated to projects committed to making a difference for young people around the world.

Girl's Day – Cordeel Nederland

In 2022, Cordeel Nederland participated in Girl's Day for the seventh consecutive year. The initiative aims to encourage greater participation of girls and women in STEM professions. At our Zwijndrecht office, we welcomed 67 young women from Walburg College. We provided them with valuable insights into our family business and the various job opportunities available within a construction company.



Welcoming our new colleagues during the onboarding day

Our goal is to make sure that new employees feel welcomed and integrated into the Cordeel Group right from the start. As a part of our onboarding process, we organise a special day for newcomers, where they have the opportunity to get to know the company alongside a diverse group of employees from our various subsidiaries. This not only helps to broaden their network but also provides a chance to learn more about the Cordeel group as a whole. In 2022, a total of 200 new colleagues participated in the onboarding days.

To facilitate an even smoother onboarding process in 2023, we will introduce a pre-onboarding app where new employees can get to know the company and their team in advance.

Find a video online: https://www.youtube.com/embed/JOUX-c9egYo?&controls=1

C-coach as mentors

We have made adjustments to our mentoring programme so that each new employee is paired with a designated C-coach during their initial weeks and months on the job. The specific roles and responsibilities of C-coaches are clearly defined. These include among others:

- Giving all sorts of practical information
- Giving a tour of the building
- Explaining where relevant information can be found and how to use the company portal.

The C-coach program is mainly about making sure that the new colleagues have a good start and that they have an additional point of contact, next to their superior that can help out with all kinds of questions.

Personal Development

We invest in our people by offering training, on-the-job learning tracks and personal development plans to keep our employees on top of their game, motivated and engaged.

C-academy – talent development

Launched in 2022, the C-academy is a specialised training platform facilitating internal and external training for employees at all levels with the aim of promoting lifelong learning and fostering the growth of our workforce's talents. In 2022, 52% of our FTEs participated in external professional development opportunities.

In 2023, we plan to take our commitment to lifelong learning to the next level by implementing a new learning management system and having a dedicated team whose role it is to make sure that our employees can participate in the training to help them advance in their careers.

11.44

Average number of training hours per person in own workforce

52%

of our FTEs participated in external professional development or lifelong learning opportunities

Career development

At Cordeel, there are continuous – more informal – feedback moments throughout the year. It's also our ambition that all employees receive one formal performance review annually. At the end of 2022, the performance review process was adapted and is now applicable for the complete Cordeel group.

With this adaptation and the increased attention for the topic within the Group, we expect the number of employees that receive their yearly evaluation to rise substantially in 2023.

We also prefer internal promotions over new hires, so before publishing new vacancies, we always check whether there's a good fit within our own organisation.

73%

of FTEs participated in regular performance and career development reviews in 2022

3%

of employees have been internally promoted in the reporting period

Diversity

Cordeel is a truly international company with 1,797 employees from 45 different backgrounds and nationalities. We continue working to increase our diversity, through ensuring diversity of gender, age, education and disabilities.

45
Nationalities

1,797
Employees

Age

Average age: **43.10 years**

Age category (in years)	Number of Employees
< 24	85
24-29	197
30-39	447
40-49	440
50-59	497
> 60	131
Grand Total	1,797

Seniority

Average seniority **9.46 years**

Seniority category (in years)	Number of employees
0-5	848
6-10	337
11-15	211
16-20	142
21-25	84
> 25	175
Grand Total	1,797

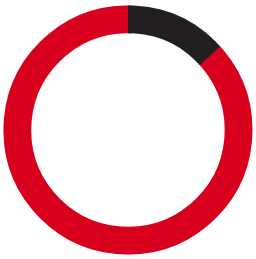
- Blue collar **873**
- White collar **924**

Blue/white collar

Grand total: **1,797**

Employees per country

Grand total: **1,797**



Male **86.8%**
Female **13.2%**

Gender

Gender pay gap

For 2022 a wage gap analysis was conducted for the firms represented on one of the work councils in Belgium. We investigated the gender pay gap on three levels:

- job level
- seniority
- level of education per company

Within the operational staff we do see negative pay gaps at some companies, meaning women earn more than men. This is the case at Imtech and C-metal. At Cordeel zetel Temse and C-concrete we see a negative pay gap both at job level and seniority.

At C-rental and C-supply the pay gap is visible both at job level, seniority and education level.

In general we have to conclude that the biggest salary gap between women and men can be found in the category of highly educated people. Male employees with a bachelor's or master's degree thus earn significantly more than women with the same level of education.

In 2022, we implemented salary scales per function which will limit salaries being too diverging from the start. Additionally, we implemented a clear policy on wage mark-ups, with the intention of making it unlikely that the salaries of a group will rise faster than the other. With the new contracts being covered and wage mark-ups being unified we aim to decrease the salary pay gap eventually.

Health & Well-being

Health and well-being are a major focus in our sustainability strategy because they play a crucial role in the success of both our employees and the company as a whole. By advocating for healthy habits, we aspire to enhance productivity and create a positive work environment. Our investment in our employees' health and well-being is a long-term strategy to ensure the sustainability of our business and differentiate ourselves as “The happiest company to work for”.

Encourage healthy habits

We want to encourage healthy habits among our employees. We do so by providing various measures to support their physical well-being. Through **ergonomic assessments**, we help ensure that our workers can perform their jobs safely and comfortably, reducing the risk of injuries.

Moreover, we offer discounts at the VITA Groep swimming pools to **encourage regular exercise**. As part of our commitment to promoting healthy and sustainable workplace practices, we provide **healthy and nutritious food and beverage options**. This includes the provision of fruit baskets in all of our offices, as well as the installation of two Dripl drink machines at our Temse location. These machines offer a wide range of healthy and refreshing beverages, including water, juices, and teas, without the use of single-use plastics. Given the positive feedback and uptake we have seen from our employees, we plan to further expand the Dripl programme across our other locations.

We also encourage the use of bikes. In 2023, we will be offering employees **bike leasing and discounts**. Several of our offices already offer bike parking, and we are planning on implementing them in all our locations starting from our HQ in 2023.

Fit at Cordeel

Sporting together has numerous benefits. It not only fosters relationships and improves team dynamics by building a sense of community and improving communication, but it can also **reduce stress and boost energy levels**, leading to enhanced mental well-being and increased productivity. Sporting together also provides a fun and enjoyable way for employees to stay active and **maintain a healthy lifestyle**, helping to reduce the risk of health problems and increase overall well-being. To promote internal connection and friendly competition, we created an internal Strava group where members could view the performances of their colleagues and participate in competitions.

Our HQ has a **fitness room** that offers a fantastic view of the Scheldt that can be used by the employees free of charge.

By providing these opportunities, we hope to encourage our employees to prioritise their physical well-being and enjoy the many benefits of engaging in sports with their colleagues.

Buddyfit

In 2022, we started a partnership with Buddyfit, the all-in-one wellness platform for the body and mind. As part of this collaboration, we provided all employees with free access to online courses they can join whenever and wherever they want.

Happy work environments

As a construction company, we recognise that our buildings have a significant impact on the health, well-being and productivity of those who use them. For this reason, we are committed to further working on improving the health and well-being of our employees and all building users in our working environment.

We are very proud that one of our employees has successfully completed the WELL training, making us the very first company in the Belgian construction sector to have an employee with this expertise. This achievement proves our commitment to building happy, healthy and sustainable buildings that improve the lives of those who use them. We will continue to invest in our employees and work to improve our own premises as we strive to be leaders in building design and construction for a more sustainable future.

Healthy indoor air

To enhance the quality of health and well-being in our offices, we have implemented bio-enhanced indoor air at our headquarters in Temse. In partnership with TakeAir, we have installed the latest Biospheric Air Treatment system, which uses biotechnology to capture and eliminate airborne pathogens in the HVAC system with a natural compound, while introducing beneficial organisms into the offices.

As a result, our indoor environment now replicates the microbial biodiversity found in the forest, creating a more favourable and balanced air quality that directly contributes to the physical and mental health of our employees.

The built-in C-scan sensors provide data on the system's performance and progress through TakeAir's Biospheric Dashboard. By breathing in healthy and fresh air, we aim to create a happy work environment for our existing and future employees.

TakeAir partnership

Find a video online: https://www.youtube.com/embed/q1h2TA7bRW0?&controls=1

Circular Buildings

The transition towards the circular economy is gaining traction in the construction industry. Buildings should be more flexible and ready to fulfil multiple functions, so early demolition can be prevented. Thoughtfully applying circular design methods asks for a reconsideration of common practices in the sector, but can prolong the lifespan of buildings drastically.

Modular and flexible buildings

We aim to make our buildings as future-proof as possible: adaptable, designed for disassembly and easy to maintain, with a modular design that extends the building's life span.

Our precast concrete elements are designed for disassembly

C-fast is our patented and innovative building system in precast concrete, with smart couplings for columns and prestressed floor slabs that are produced at C-concrete.

The major advantages of this system compared to the traditional methods are a much faster construction time and assembly (2 days per floor), lower construction costs, and a modular design that allows for later adaptations and disassembly.

C-fast is modular and barless. It can be used in both non-residential constructions as well as in buildings with mixed functions such as apartment buildings.

Insulation and circular facades

With insulation not being embedded in sandwich panels, but tucked in structural liner trays, the insulation and the facade finishing can be disassembled and adapted if needed. This approach will increase the value and adaptability of our buildings in the long run.

We utilised mineral wool for insulation in our projects because it has a smaller environmental impact than PIR insulation. We're currently looking into bio-based insulation materials, as we think this can be a solution to lower the embodied carbon of buildings even more.

Avoiding fixed interior walls and providing high headrooms

This will allow for easier adaptations and repurposing of our buildings in the future, as the built-in flexibility can give a second or third life to buildings, without major demolitions.

Reuse of materials

Resources on the globe are not endless, and with so many existing buildings, it's clear that we must find ways to conserve these resources. At Cordeel, we believe that buildings are material banks for the future. That's why **our goal is to create a material passport for every building with a BIM model by 2024**.

Urban mining

Our ambition is to take advantage of every opportunity to dismantle materials before demolishing a building. We have several projects in the pipeline that we plan to utilise to ensure that any resources that hold value for us or other players in the market are salvaged rather than wasted. We believe material passports will play a key role in facilitating urban mining.

Collaboration

Without an adequate supply of reclaimed material, large-scale projects can't happen. We recognize that there are several challenges involved in the reuse of materials, including logistical challenges and clients' demands. However, we believe that these issues can be resolved, and we actively collaborate with various organisations and stakeholders to enhance our contribution. This includes partnering with material banks, municipalities and cities and other companies.

Managing our overstocks and returns

We also give a second life to materials that return from construction sites, which is another important source of materials for us. These materials may not have been used for their original purpose due to modified orders or excess inventory and, in the past, they would have been discarded. However, at the beginning of 2022, we established an internal platform to collect and offer these items to our fellow project leaders.

In 2023, we plan to adopt a unified approach to ensure that we use our resources in an efficient way without having to purchase new materials.

Case

Multi – a showcase project to reuse materials

We are proud to have contributed to the redevelopment of Multi, a landmark located in the heart of Brussels. Our construction team strived for a BREEAM Excellent certification for the renovation project completed in 2022, with a strong focus on utilising recovered materials.

To achieve this, we repurposed the original Belgian blue stone and the terrace was laid with 400 recovered granite tiles. Moreover, we incorporated 1,300 metres of aluminium profiles from the Brouckère tower into the balustrades and light fittings of the renovated tower.

Imtech was responsible for the technical installations, and we also reused sanitary equipment. C-wood built the entry hall desk from reclaimed material.

We were inspired by our customers Whitewood & Immobel's ambitious vision for this project, which pushed us to prioritise the use of reclaimed materials and circular construction.

Bio-based materials

Bio-based materials will play an increasingly important role in our stride to reduce the embodied carbon of the buildings that we're placing.

Bio-based materials

Bio-based materials will play an increasingly important role in our stride to reduce the embodied carbon of the buildings that we're placing. Bio-based materials offer a plethora of advantages:

- Helps to reduce the embodied carbon of buildings
- These materials can actually sequester carbon
- Tends to be a healthier choice than the alternatives currently used
- Increased recyclability (and sometimes biodegradability) compared to fossil alternatives
- Lower pollution risk

It is our ambition to structurally increase bio-based materials in our projects.

Bio-based paint and coatings

Sobeltec is developing and producing bio-based paint, coatings and wood finishes under the brand name Ariomat. By focusing on the use of mineral raw materials, they replace polymers like polyurethane.

Bio-based firefighting equipment

With our innovative and environmentally-friendly equipment and systems, C-fire offers a sustainable solution for firefighting.

We have developed extinguishing fluids that are free of fluorine, a component of PFAS which is harmful to the environment. European legislation is in the making to phase out fluorine-free fire extinguishers fluids.

Our products are just as effective as previous systems but much more sustainable. Rather than waiting for legislation to be finalised and implemented in Belgium, we have already included products in our assortment that meet these requirements. By the end of 2022, we received the first shipment of fluorine-free fire extinguishers, which have been sold already.

To further enhance our product range, we have developed a 100% biodegradable fire extinguishing spray for small or early fires, called Control Fire. This product is also safe to use on humans as it does not cause irritation or harm if it ends up on sensitive areas such as the face, mouth or eyes. Additionally, Control Fire can also cool down and extinguish fires in batteries.

We take safety seriously, which is why all of our lithium-ion batteries of C-battery include fire extinguishing tubes, increasing the safety of the batteries.

In 2023, we will continue the development of our biodegradable fire extinguishers and will investigate how to improve the recycling of extinguishers, together with Flanders Make and other partners.

Find a video online: https://www.youtube.com/embed/vbpSrg5cahE?&controls=1

Hemp as a bio-based building material

In collaboration with the University of Hasselt, C-biotech underwent in-depth research on bio-based (soil) remediation methods, specifically using hemp. The research shows that hemp roots absorb PFAS and nitrate and store them in the plant's leaves and heads. The stems of the plant remain pollution-free and can be processed into durable and strong building materials.

There are many applications for industrial hemp. C-biotech focuses on researching and implementing those applications. As of 2023, the company will start developing its first products and measure their positive impact by means of life cycle assessments. These bio-based construction materials, which can often be created on a local level, will help decrease the carbon footprint of buildings and at the same time accelerate the transformation towards a circular economy.

Biocomposites: e.g. as raw material to produce traffic signs

Press wooden sheet material for sandwich panels: Sheet material made from hemp with the goal to create sandwich panels, filled with bio-based insulation.

Reducing water consumption

Water is a precious good, which we at Cordeel also benefit from thanks to the location of our headquarters in Temse. Yet, Europe is facing more and longer periods of drought, which we consider a serious problem.

Water consumption in 2022*

* Companies that we're reporting on: Wholly-owned companies of the Cordeel Group (including all subsidiaries in the Netherlands, Serbia, Bulgaria).

Water consumption: offices & production	4,373 m³
Water consumption: construction sites	27,458 m³
Consumption of rainwater	4,821 m³
Total	36,652 m³

Water consumption of our precast concrete production

The precast concrete plant of C-concrete in Temse is – in contrast to conventional precast production – not using fresh water but rainwater stored in our dry dock.

After production, we clean the residual water thoroughly and release it back into the dry dock for future reuse. We monitor the water quality constantly.

The dry dock is closed, so there is no connection to the river Scheldt. In this way, we make sure to not harm this precious ecosystem.

The C-concrete plant in Hoeselt is not using rainwater and therefore consumed 292m³ of fresh water in 2022.

4,821

m³ rainwater used for precast production

Groundwater withdrawal on construction sites

We are aware of the impact we have with our construction operations on the environment. We, therefore, strive to minimise this impact as much as possible.

The operations of our C-construct division sometimes ask for groundwater withdrawal to dewater construction pits, so we do have an impact on this resource as well. We try to limit this as much as we can.

By applying the principle of return drainage, pumped water is released back into the groundwater, preventing groundwater from sinking. We are trying to apply this measure as much as possible on our sites, taking into concern local legislation, making sure we don't return potentially polluted water and the relevant adapted measures that need to be taken into account.

We're not structurally monitoring our water consumption on construction sites yet, nor do we measure our groundwater withdrawal from the construction pits for every company. We will start this up in 2023 and **aim for 0% water discharged into the sewer by 2026**.

Groundwater withdrawal on construction site in 2022*

* Companies that we're reporting on: Companies from the C-construct division, excluding Cordeel zetel Temse & Cordeel Nederland

Groundwater withdrawal by pumping	78,025 m³
Return drainage	8%
Discharge of water: reuse	0%
Discharge of water: discharge to surface water	55%
Discharge of water: discharge into the sewer	37%

Target

2026

Monitor group-wide ground-water withdrawal and consumption of water on construction sites

2026

0% of pumped water from construction pits discharged into the sewer. Focus on reuse of water (return drainage or making it available for agriculture or citizens)

Reducing waste

The construction and demolition sector is responsible for about a third of all waste generated in the European Union. Here's what we do to tackle this challenge.

The construction and demolition sector is responsible for about a third of all waste generated in the European Union. Our big goals are to

- prevent anything from becoming waste as much as possible by increasing our focus on mapping what's inside our building (material passports) and using circular building practices (e.g. design for disassembly)
- Reduce the amount of waste throughout the entire Group

The industrialisation of the construction process is key to reduce waste: By prefabricating concrete structures in a weather-proof, industrial environment, we can decrease potential mistakes on-site and avoid waste being created in the first place.

Additionally, we will focus on splitting waste streams better and trying to find suitable applications for those waste streams. We acknowledge that what might be waste for us, might still be a valuable resource for others. By setting up partnerships across our value chain we will try to valorize our waste streams, keeping them in the loop as materials and therefore accelerating the circular economy.

Waste streams*

Our top-5 waste streams account for 91% of the total amount of waste and are therefore the most material waste streams.

** Companies that we're reporting on: Wholly-owned companies of the Cordeel Group (including all subsidiaries in the Netherlands, Serbia, Bulgaria)*

Construction and demolition waste	9,660 tons
Stony material	3,356 tons
Wood	1,965 tons
Metal	1,521 tons
Residual waste	1,407 tons
Other waste streams	1,677 tons
Total	19,585 tc

Origin of waste

Construction sites	**74.3%**
Production plants:	**20.4%**
Offices & warehouses	**5.3%**

Waste intensity

Waste produced in tons	Turnover in mio €	Tons per mio € turnover
19,585	896	21.86

Target

2023

Increase our insights in the final processing of waste streams

2023

Increase the share of waste being reused or recycled by 10%

2026

Ambition: Zero-waste-production of production companies

Zooming in on actions for waste reduction

C-concrete in Temse

- Ecofrog:
  - Is used for surplus concrete and splits cement, sand, grind & water
  - This results in a decrease of concrete waste
  - The water is thoroughly cleaned and released back into the dry dock
  - Starting from 2023, we will reuse the recuperated sand & grind in our operations
- The remaining surplus of concrete is used to produce jerseys
  - This approach was started at the end of 2022
  - We were able to reduce our concrete waste with 7.5 ton
- Steel waste from production is given to the supplier of connection bolts.
  - They are producing new bolts from it which we use for the transportation of our prefab elements.
  - Additional steel waste represents only 3-4% of the total
- Formwork wood waste:
  - Reuse as long as possible
  - Recycling of unusable pieces and pieces that are too small

Avoiding food waste

- A surplus of catering from meetings is distributed among employees of the respective building and/or stored in fridges which leads to happy colleagues.
- On the safety day in Temse in August there was a large surplus of pastry which was delivered to a local food bank.

C-supply: Collaboration with material banks

- Overstocks are given to material banks or thrift shops (“Kringloopwinkel”) so that the materials get a second life.
- Materials that return from construction sites of Cordeel zetel Temse and are not reused on other construction sites in a period of 6 months are also given to material banks

Reducing our carbon footprint

At Cordeel Group, we are dedicated to transforming the future by focusing on innovation to create smart, energy-efficient, and low-carbon solutions, and reducing our carbon footprint is a crucial aspect of this mission. As a major European player in the construction industry, we recognise that our operations have an impact on the environment, and we are determined to minimise that impact to the greatest extent possible. By taking concrete steps to reduce our carbon emissions, we are working towards a brighter, more sustainable future for all.

What do we report on?

Our carbon footprint reporting covers scope 1 & 2 emissions as well as business travel (scope 3) from companies in Belgium that are wholly owned by the Cordeel Group as well as the Cordeel subsidiary in the Netherlands. This organisational boundary is bigger than what we report on in the framework of the CO_2 Performance Ladder, which is currently focused on the operations of Cordeel zetel Temse as well as the companies located on our site “De Zaat” in Temse.

The emission factors we use to calculate our carbon footprint are the well-to-wheel emission factors that we use for the CO_2 Performance Ladder as well. These can be found at https://co2emissiefactoren.be/factoren

Due to the extended scope of companies we cannot report on the previous year for all the companies in the organisational boundary.

What are scope 1 emissions?

Scope 1 CO_2 emissions are direct greenhouse gas emissions that come from sources owned or controlled by a company, such as from our own vehicles, construction equipment or heating and cooling.

What are scope 2 emissions?

Scope 2 emissions are indirect greenhouse gas emissions that come from the generation of purchased electricity, steam, or heat consumed by a particular company or organisation. These emissions are generated by another entity, such as a utility company, but are a result of the energy consumed by the reporting company.

CO_2 Performance Ladder

The CO_2 Performance Ladder is a sustainability tool and certification scheme that empowers companies to reduce CO_2 emissions by implementing practical measures, fostering innovation and sharing knowledge. It is actively used as a criterion for awarding public contracts in the construction industry.

The idea behind the tool is to encourage the entire sector to establish a continuous management system for reducing CO_2 emissions, rather than working solely on project-based measures. As a result, the ladder delivers energy and cost savings for the company.

In 2021, the companies located at our site in Temse got certified at level 3 and we have been reporting on our CO_2 emissions and the progress since then. We aspire to achieve level 5, the highest level, during our upcoming re-certification in the summer of 2024.

Energy performance in 2022

*Measurement scope: Companies in Belgium that are wholly owned by the Cordeel Group as well as the Cordeel subsidiary in the Netherlands

Renewable or not renewable?	Type	Sum of kWh
Non-renewable	Purchased electricity	5,319,809.50
Total not renewable energy		5,319,809.50
Renewable	Purchased electricity	2,779,233.00
	Self-generated energy	1,685,957.00
Total renewable energy		4,465,190.00
Total electricity consumption		9,784,999.50

Energy intensity

*Measurement scope: Companies in Belgium that are wholly owned by the Cordeel Group as well as the Cordeel subsidiary in the Netherlands

Consumption of electricity in MWh	Turnover in mio €	MWh per mio € turnover
9,784.9	823	11.89

Temse as test case for our innovations on energy

With the C-energy division we accelerate the electrification of the construction sector, the operations of our customers and industrial processes. On the site of our headquarter in Temse, we test our innovations before go-to-market.

Currently, 2.07 Megawatts-peak (MWp) of solar panels are installed at our site in Temse. These solar panels reduce our dependence on fossil fuels and the grid, cut our carbon footprint, and are a prime example of how we are promoting renewable energy as an energy source of the future already today.

In 2022, we realised an auto consumption of 40% on our site “De Zaat” in Temse, which is a 10% increase compared to 2021.

We plan to structurally increase our auto consumption, e.g. with the planned battery storage projects on the site as well as the electrolyser that will be installed in 2023.

Our energy hill, which is expected to be completed in 2024 will provide additional energy storage.

Since the end of 2022, we have been testing and fine-tuning our EMS (Energy Management System), which is the backbone of all electrification projects. It is linking and steering our renewable energy production, HVAC system, batteries, charging poles and the to be installed electrolyzer and energy hill.

Energy target

2023

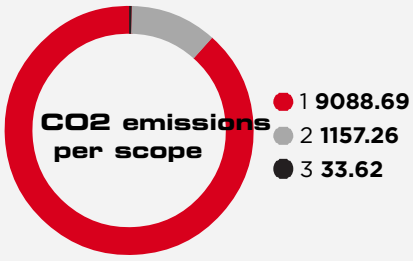
100% green electricity for all locations

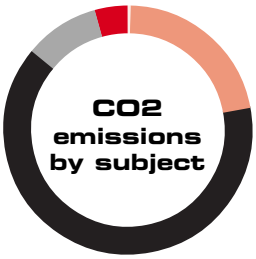
Greenhouse gas emission performance

*Measurement scope: Companies in Belgium that are wholly owned by the Cordeel Group as well as the Cordeel subsidiary in the Netherlands

Total CO2 emissions per scope

Scope	Tons CO2
1	9,088.69
2	1,157.26
3	33.62
Total	10,279





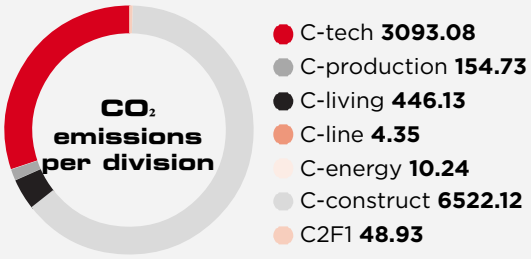
- Sport & pool facilities **446**
- Offices/production **1046**
- Fleet **6535**
- Construction sites **2219**
- Business travel **34**

GHG emissions intensity 2022

CO2 emissions in tons	Turnover in mio € for companies in scope	Ton CO2 per mio € turnover
10,279.57	823	12.49

CO2 emissions by origin

Scope	Top category	Tons CO2
1	Fuel	8,223.09
	Heating	793.96
	Process gases	1.61
	Refrigerants	70.03
1 Total		9,088.69
2	Electricity	1,157.26
3	Business Travel	33.62
Grand total		10,279



CO_2 reduction targets

2023	100% green electricity for all locations
	Roll-out mobile battery containers on construction sites
	Report on scope 1 & 2 of complete Cordeel group (reporting year 2023)
	Report on the three most material scope 3 emissions (reporting year 2023)
2024	Ambition: Receive certification for CO2-prestatieladder level 5
2025	Report on scope 1-3 of complete Cordeel group (reporting year 2025)
	90% of passenger cars are electrical
2026	100% of passenger cars are electrical
2027	Ambition: CO2-neutrality scope 1 & 2 with reduction of at least 75% (compared with base year 20

Emission-free construction sites

Fossil fuels needed on our construction site account for 16.5% of our total CO_2 emissions. When zooming into our C-construct division, fossil fuels account for more than 25% of their CO2 emissions and are therefore an important driver of our scope 1 & 2 emissions.

To achieve our ambition of emission-free construction sites, we focus on their electrification. To achieve this, we apply the following measures:

Measuring consumption of electricity

Measuring consumption of electricity

With our C-scan sensors, we monitor electricity consumption of the main consumers on construction sites. The sensors offer us a transparent view of the electricity needed for tower cranes, dewatering of construction pits, and on-site offices, depending on the time of the year and phase of the works. This provides us with the insights we need to take the right reduction measures.

Electric construction equipment

Electric construction equipment

Apart from using mobile battery containers to replace generators, we also invest in electric machinery. C-rental purchased five Volvo L25 Electric Wheel Loaders, which have the same power as a diesel-powered wheel loader but produce no emissions.

Furthermore, C-rental has integrated 70 electric scissor lifts and telescopic boom lifts into its fleet.

Use of biofuels

Use of biofuels

HVO100 is a synthetic biofuel under the EN15940 standard, consisting 100% of waste vegetable oils treated with hydrogen (HVO = 'Hydrated Vegetable Oil'). It emits 89% less CO_2 over the entire life cycle ('well-to-wheel') compared to regular diesel.

Cordeel Nederland uses HVO 100 for every construction site, which makes up for a reduction of CO_2 emissions of 280 tons, based on the difference in CO_2 emissions of HVO 100 compared with conventional diesel.

We consider HVO 100 to be a transition fuel towards full electrification of construction sites.

Grid connection

Grid connection

Where available, we use a grid connection with as much power as possible.

Transport by water

Transport by water

Although we have not reported on our scope 3 emissions in a structural manner yet, we have been actively working on reducing them for a while. The strategic location of Cordeel Group headquarters alongside the Scheldt river provides us with the opportunity to use the river for our transportation requirements. This is not only efficient but also lowers our scope 3 emissions and helps us avoid the congestion of Belgian highways.

We also rely on water transportation to deliver raw materials for our concrete plant and the soil required to construct our energy hill in Temse.

Most of the prefab elements used to build the Amazon warehouse on the Blue Gate site in Antwerp were transported via water and picked up at our dry dock.

In Rotterdam, we're currently building "De Boompjes" which is located right on the Maas river with the iconic Erasmus bridge in plain sight. By using water transportation, we were able to reduce 350 instances of traffic along congested roads in Rotterdam.

This approach is the ideal solution for inner-city buildings on the water. Not only did we significantly reduce truck traffic for residents and passers-by, but it also allows for the efficient use of the vessel to expand the limited construction site.

Mobile battery containers on construction sites

Mobile battery containers on construction sites

Since construction sites tend to have a limited or even no grid connection, this missing capacity is supplemented by diesel-powered generators. These have a negative impact on several environmental aspects such as noise, dust, nitrogen, ineffective fuel use, and high CO_2 emissions resulting from the use of fuel.

We noticed that we often use diesel generators with a capacity higher than required. The main reason is that tower cranes have power peaks for a very short period of time for which the capacity is dimensioned.

Our thorough measuring helped resize our mobile battery containers that will be rolled out in 2023. C-battery is producing these battery containers, based on lithium-ion technology and available in two versions, both built in 10ft containers: 100 kWh & 215 kWh.

C-rental already ordered 100 mobile batteries, which will also be available for third parties. In this way, we can not only decarbonize our own operations, but also support other companies in the sector to do so as well.

Eventually, these mobile batteries will make generators obsolete and have a major positive impact on the environment: less noise, less smell, less CO_2 and nitrogen emissions.

Greening the fleet

Fossil fuel plays a significant role in driving our CO_2 emissions. The fuel for our fleet accounts for 63.6% of our total CO_2 emission, a mere 6,532 tons. This makes the fossil fuel for the fleet the major driver of our CO2 emissions.

We're actively tackling these emissions and expect substantial declines in 2023.

Charging poles

In 2022, we installed many new charging poles across our sites, bringing the total number of charging poles on our premises to over 60.

Powerstation, our charging pole supplier, is constantly expanding its range of charging poles available.

Their latest generation of charging stations will allow users to charge their vehicles without the need for a charge card or app thanks to the automatic authentication technology. Powerstation has plans to further develop a V2G (Vehicle-To-Grid) capability at a later stage, enabling vehicles to inject power back into the grid and serve as a driving battery for a variety of applications.

Hydrogen cars

We firmly believe in hydrogen's potential as a sustainable energy carrier. We consider it a viable alternative for our bigger vehicles and for longer distances where battery technology may not be adequate.

Currently, we are running a pilot project using hydrogen-powered vehicles. To this end, C-energy purchased four Toyota Mirai hydrogen cars that are available as pool cars for employees who require transportation for site visits, customer appointments, etc.

In our Temse headquarters, we built our own hydrogen gas station. Our aim is to use the hydrogen that we produce through our electrolyser in this facility in the future.

Fully electric car policy

In 2022, we have adapted our car policy to exclusively use 100% electric passenger cars to reduce our dependence on fossil fuels and lower our CO_2 emissions. In 2022 alone, we ordered 118 electric passenger cars, with plans to increase this number in 2023. No hybrid or fossil fuel powered passenger cars were ordered in 2022. However, one of the main challenges we face is the speed of delivery of the vehicles and the availability of suitable electric vans with a sufficient range, especially for the technicians at Imtech.

Digitalisation

Highlighting our approach for the digital transformation.

Digital construction

BIM (Building Information Model) is an essential component of the digital transformation we (and our sector) are going through. The main objective of a BIM process is to enhance collaboration by setting up a central platform that serves as a single source of truth/information. Working with BIM has many advantages:

- It is the **perfect foundation for material passports**, with info on amongst others recyclability and circularity;
- It can **help to set up predictive maintenance schemes**, improving material and building longevity.

Our digital transformation focuses on creating data and data flows rather than individual drawings, documents and models. This prepares our organisation for the future.

The first step we are taking towards standardisation and uniformity is setting up a central platform, where all project-related information will be stored together.

To facilitate this, the construction site is equipped with a smart board, eliminating the need for printed plans during meetings with constructors. This is not only good for the environment but also convenient for planning changes. Additionally, construction sites are equipped with QR codes, allowing employees to access plans and documents whenever necessary on their phone/tablet.

Digital HR

Our HR service centre strives to maximise digitisation by leveraging providers such as Officient to enable employees to perform administrative tasks like requesting holidays and reviewing documents online. In 2023, we will introduce a digital learning management system to enhance employee development.

Furthermore, we are using DocuSign to finalise agreements for all entities within the Cordeel Group. This tool eliminates the need for printing, signing and rescanning documents, enabling us to process agreements completely digitally. By using DocuSign, we can save a significant amount of paper savings and finalise agreements faster and more efficiently.

Codes, policies & procedures

In 2022, we dedicated significant efforts to professionalising our ethical conduct practices.

Codes, policies & procedures

Code of Conduct for employees and directors

Code of Conduct for employees and directors

In July 2022, we implemented a Code of Conduct for our own employees and directors, followed by the publication of the Code of Conduct for our business partners in December 2022. Both codes will undergo annual reviews.

The Code of Conduct comprises:

- The **Workplace Conduct** which outlines expectations for employees' behaviour in the workplace, including professionalism, safety, and diversity and inclusion.
- The **Business Conduct** which outlines expectations for ethical business practices, including anti-corruption, fair competition, and protection of confidential information.
- **Environment, Health, and Safety** which outlines expectations for employees' behaviour to ensure environmental sustainability and safety in the workplace.
- **Reporting violations** which outline the procedures for reporting violations of the code of conduct and encourage employees to report any suspected violations.
- **Consequences of violations** which outlines the potential consequences for violating the code of conduct, including disciplinary action and termination of employment.

The Code of Conduct can be consulted here. In 2023, we will continue to implement and reinforce our codes, policies and procedures within the organisation through training and continuous awareness-raising initiatives.

Procedure for reporting concerns

Procedure for reporting concerns

We implemented a whistleblower tool to enable internal and external stakeholders to raise concerns anonymously.

For suppliers

For suppliers

Due diligence for subcontractors and suppliers has been set up. Additionally, we plan to introduce a sustainable purchasing policy and update our supplier evaluation questionnaire in order to ensure that our business partners comply with our codes and policies as well.

GDPR and data protection

GDPR and data protection

We attach great importance to the safe, transparent and confidential collection and processing of personal data. We place a high priority on protecting data belonging to parties that include our clients, subcontractors and suppliers against, among other things, loss, leaks, errors, unauthorised access and unlawful processing.

We composed a Data Protection Notice explaining how we collect and process personal data.

Check In At Work

Our internal website, Check In At Work (CIAW), represents an advanced form of digitization. This in-house development provides a completely digital solution for monitoring, reporting and follow-up of individuals present on a site, including subcontractors. CIAW also verifies all essential employment documents required for work in Belgium, ensuring that ethical and responsible work practices are maintained.

GRI content index

Cordeel Group uses GRI as a reference framework to create an all-encompassing report and to make sure the readers of this report find all information they need.

GRI Standard	Disclosure	Where to find the information?
GRI 2: General Disclosures 2021	2-1 Organizational details	Cordeel Group, Facts & Figures
	2-2 Entities included in the organization's sustainability reporting	Cordeel Group (the measurement scope for all data is always mentioned on the dedicated pages)
	2-3 Reporting period, frequency and contact point	1 January 2022-31 December 2022 / A report will be published annually / Contact point: Simon Maillet (Group Sustainability Manager) - sustainability@cordeel.eu
	2-4 Restatements of information	There are no restatements of information in this report.
	2-5 External assurance	This report isn't verified by a third party.
	2-6 Activities, value chain and other business relationships	Cordeel Group, Our stakeholders
	2-7 Employees	Diversity
	2-8 Workers who are not employees	/
	2-9 Governance structure and composition	Corporate Governance
	2-10 Nomination and selection of the highest governance body	Corporate Governance
	2-11 Chair of the highest governance body	Corporate Governance
	2-12 Role of the highest governance body in overseeing the management of impacts	Corporate Governance, Sustainability governance
	2-13 Delegation of responsibility for managing impacts	Corporate Governance, Sustainability governance
	2-14 Role of the highest governance body in sustainability reporting	Corporate Governance, Sustainability governance
	2-15 Conflicts of interest	Codes, policies & procedures
	2-16 Communication of critical concerns	Codes, policies & procedures
	2-17 Collective knowledge of the highest governance body	Corporate Governance, Sustainability governance
	2-22 Statement on sustainable development strategy	Why is sustainability at the core of what we do?, Sustainability strategy
	2-23 Policy Commitments	Key targets

GRI Standard	Disclosure	Where to find the information?
	2-24 Embedding policy commitments	Corporate Governance, Sustainability governance, Key risks & opportunities
	2-25 Process to remediate negative impacts	Codes, policies & procedures, Local community engagement
	2-26 Mechanisms for seeking advice and raising concerns	Codes, policies & procedures
	2-27 Compliance with laws and regulations	There were no significant instances of non-compliance with law in 2022
	2-28 Membership associations	Sharing knowledge
	2-29 Approach to stakeholder engagement	Our stakeholders, Employee engagement, Local community engagement
GRI 3: Material topics 2021	3-1 Process to determine material topics	Materiality matrix
	3-2 List of material topics	Materiality matrix
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Facts & Figures, Philanthropy
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Reducing our carbon footprint
	302-3 Energy intensity	Reducing our carbon footprint
	302-4 Reduction of energy consumption	Reducing our carbon footprint, Accelerating the energy transition
	302-5 Reductions in energy requirements of products and services	Accelerating the energy transition
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Reducing water consumption
	303-2 Management of water discharge-related impacts	Reducing water consumption
	303-3 Water withdrawal	Reducing water consumption
	303-4 Water discharge	Reducing water consumption
	303-5 Water consumption	Reducing water consumption
GRI 304: Biodiversity 2016	304-2 Significant impacts of activities, products and services on biodiversity	Remediation of contaminated soil
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Reducing our carbon footprint
	305-2 Energy indirect (Scope 2) GHG emissions	Reducing our carbon footprint

GRI Standard	Disclosure	Where to find the information?
	305-3 Other indirect (Scope 3) GHG emissions	Reducing our carbon footprint
	305-4 GHG emissions intensity	Reducing our carbon footprint
	305-5 Reduction of GHG emissions	Reducing our carbon footprint, Decarbonisation of buildings, Bio-based materials
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	Reducing waste
	306-2 Management of significant waste-related impacts	Reducing waste, Circular buildings, Bio-based materials
	306-3 Waste generated	Reducing waste
	306-4 Waste diverted from disposal	Although we're actively working on diverting waste from disposal, we haven't started measuring this yet.
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Attract & retain talent
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Safety, Health & well-being
	403-2 Hazard identification, risk assessment, and incident investigation	Safety
	403-3 Occupational health services	Safety, Health & well-being
	403-4 Worker participation, consultation, and communication on occupational health and safety	Safety, Health & well-being
	403-5 Worker training on occupational health and safety	Safety
	403-6 Promotion of worker health	Safety, Health & well-being
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Safety, Health & well-being
	403-8 Workers covered by an occupational health and safety management system	Safety, Health & well-being
	403-9 Work-related injuries	Safety
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Personal Development
	404-2 Programs for upgrading employee skills and transition	Personal Development

GRI Standard	Disclosure	Where to find the information?
	assistance programs	
	404-3 Percentage of employees receiving regular performance and career development reviews	Personal Development
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Diversity, Corporate governance
	405-2 Ratio of basic salary and remuneration of women to men	Diversity
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	Local community engagement, Philanthropy
	413-2 Operations with significant actual and potential negative impacts on local communities	Local community engagement, Philanthropy

Corporate Governance

In the past years, the Cordeel Group has grown rapidly: new companies were set up and acquired, and new divisions were established. We professionalised our organisation to be ready for further growth. In the second half of 2022, we started updating our corporate governance, in order to clarify roles and responsibilities.

Board of Directors

The Board of Directors meets on a monthly basis and is responsible for the long-term value creation of the group. They monitor the performance and the progress of the strategy they defined and steer where necessary.

Annually, the Board Of Directors receives updates on the implementation progress of our sustainability strategy. They review and endorse the set targets and provide feedback on our strategy. Two members of the Board of Directors are also part of the Sustainability Committee, highlighting the importance of this topic for our Group.

The board members qualify for their function due to expertise and in-depth knowledge in the construction and real estate sectors, finance and legal.

The members of the Board of Directors are:

- Filip Cordeel – CEO Cordeel Group (M)
- Dirk Cordeel – Director (M)
- Aurélie Cordeel – Strategic Change Manager (F)
- Erik De Bruyn – CEO Cordeel Nederland (M)
- Hilde Vangilbergen* – CFO (F)
- Laurence Gacoin** – CEO C-energy and C-innovation (F)

* Hilde Vangilbergen (permanent representative of Tsundoku Ventures)

** Laurence Gacoin (permanent representative of Nova LaGa)

Men **50%**
Women **50%**

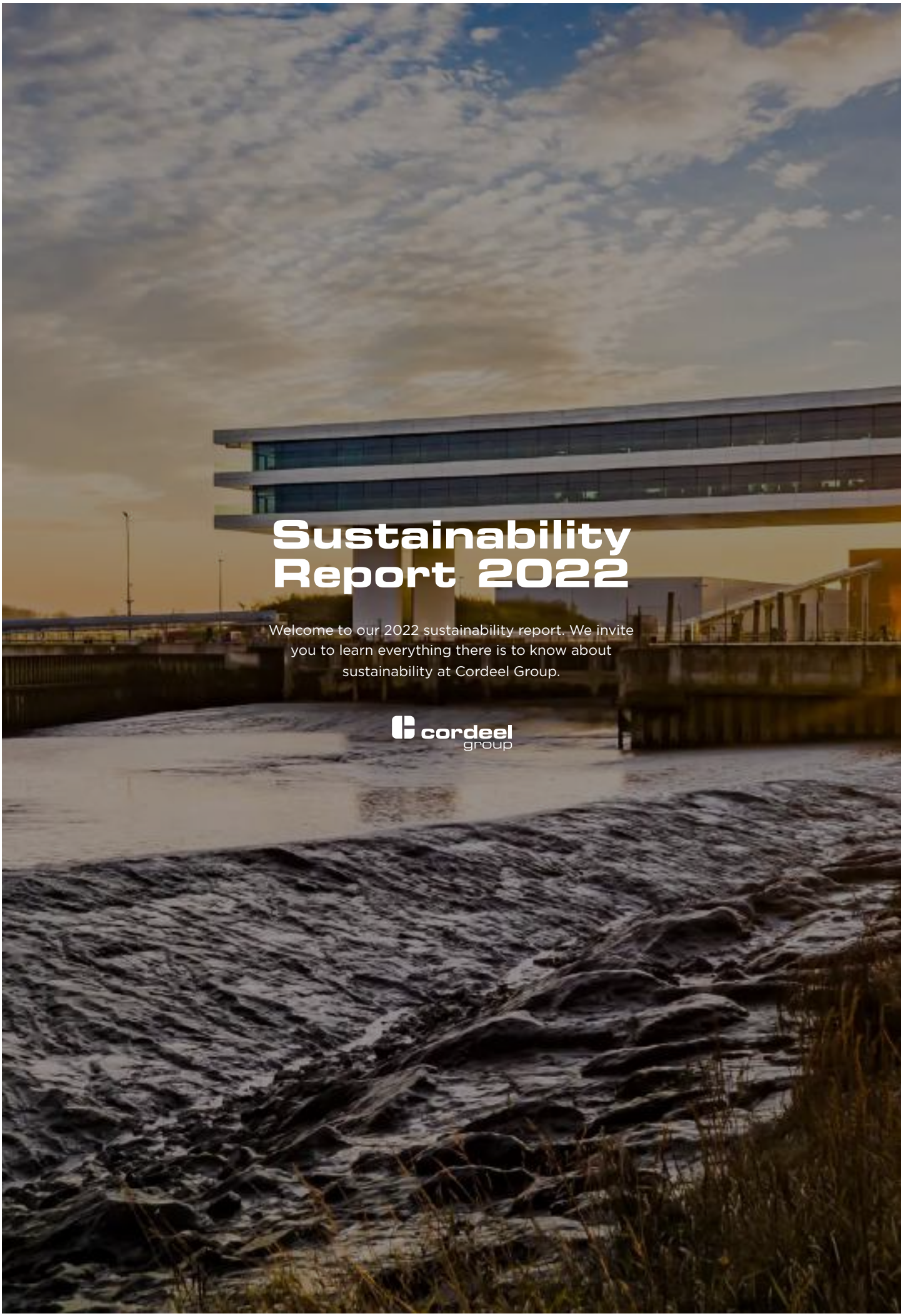
Gender diversity in the board

Corporate governance charter

The aim of the upcoming corporate governance charter is to establish greater uniformity across all 100% controlled companies. This includes aligning the appointment period and member election process.

The charter will define clear boundaries for autonomy and responsibility, and require adherence to the four-eye principle for matters beyond the predefined limits (reserved matters). In addition, the new corporate governance regime will ensure that all signatures are placed with full knowledge of the facts.

The rollout of the new corporate governance regime has already started. The final corporate governance charter will follow in 2023.


Sustainability
Report 2022
Welcome to our 2022 sustainability report. We invite you to learn everything there is to know about sustainability at Cordeel Group.
cordeel
group

About Cordeel →

Sustainability Strategy →

Key targets

Sustainability Governance

Our people →

Attract & retain talent

Personal Development

Diversity

Employee engagement

Safety

Health & Well-being

Impact on society →

Our stakeholders

Local community engagement

Sharing knowledge

Remediation of contaminated soil

Philanthropy

Sustainable buildings and products →

Decarbonisation of buildings

Accelerating the energy transition

Bio-based materials

Circular Buildings

Sustainable operations →

Reducing water consumption

Reducing waste

Reducing our carbon footprint

Digitalisation

Corporate Governance and ethical behaviour →

Codes, policies & procedures

Corporate Governance

GRI →

GRI content index

Cordeel Group

The Belgian-based, family-owned business Cordeel Group has grown to become a major European player in the construction industry since its foundation. Currently, the group oversees multiple businesses, partnerships, and joint ventures.

Your one-stop building partner – everything under one roof

Cordeel Group is much more than a construction company. It is the one-stop partner for the complete construction process. The companies that operate under the Cordeel Group banner are each highly specialised in their own field. We work together or independently **to create sustainable, future-proof solutions for our clients' complex requirements**. From this broad expertise, we take care of the complete construction process, from design and technical support to completion and maintenance.

Our strategy is **"acceleration through vertical integration"**: working together with all companies of the group gives us a competitive edge by being more streamlined, avoiding delays as we gather the expertise in the group. This helps us reach our ambition of **being Europe's fastest builder**.

We have offices in seven countries: Belgium, Netherlands, Bulgaria, Serbia, Czech Republic, Hungary & Poland, with reference projects in eight countries.

Find a video online: https://www.youtube.com/embed/p15m2CVWMXc?&controls=1

Our impact in numbers

939.36

million EUR

Total turnover in 2022

1,797

Total number of employees in 2022

45

The number of nationalities working at Cordeel Group

Cordeel Group

construct

C-construct

With its broad experience in construction services, C-construct can handle the entire construction process, from the initial idea to after-care and maintenance. In-house production guarantees quality and flexibility.

production

C-production

Our in-house production and assembly facilities for prefab concrete, reinforcement steel, metalworking, carpentry, façade cladding, and modular bathroom units, guarantee high-quality construction work and a streamlined construction process without unnecessary delays.

tech

C-tech

As smart buildings become the norm, the need for innovative technical installations is increasing. With our C-tech companies and a strong focus on tailor-made solutions and integrated project management, we are well-positioned to meet this need. We can design and instal even the most complex multi-technical installations such as HVAC, electricity, sanitary, piping, security systems and maintenance.

energy

C-energy

As an independent entity of the Cordeel Group, C-energy develops new sustainable technologies and applications that must provide an answer to the energy transition and all the challenges that this entails.

living

C-living

As the real estate division of Cordeel Group, C-living focuses on the purchase or real estate development of projects, grounds and buildings, for logistics, manufacturing and residential purposes. Within C-living, **Vita Group** is a specialist in the development, design, construction, financing, maintenance and operation of sports complexes and swimming pools in the public sector.

line

C-line

C-line is engaged in the development and marketing of innovative and sustainable products. They are the continuation of extensive R&D and innovation, both through our own C-innovation and C-energy divisions as well as through close partnerships with our partners.

Corporate Services

Our Corporate Services support all the Group's operational services in their daily activities. They enable different areas to be managed centrally at the Group level while the operational services can fully focus on their core activities. This approach has led to far-reaching efficiency improvements in our operations.

Facts & Figures

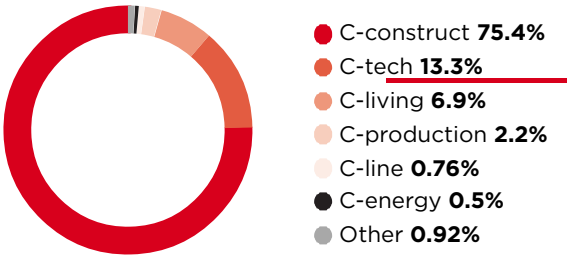
In 2022, Cordeel realised almost 940 million EUR in revenue, a testament to the company's expertise and dedication to delivering high-quality projects, achieved by its almost 1,800 employees.

939.36 million EUR

Total turnover 2022

1,797 employees

achieved these impressive figures

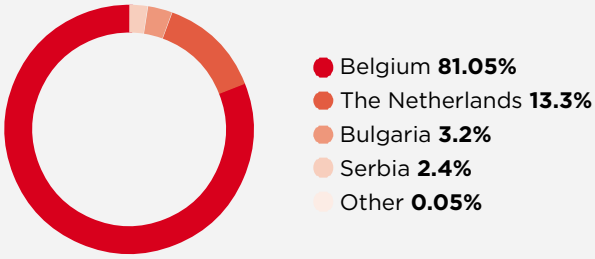


Split of turnover by activity

939.36 million EUR

Split of turnover by country

939.36 million EUR



Key risks & opportunities

This section highlights the key risks and opportunities that Cordeel Group is currently facing. Identifying and assessing these factors is crucial for developing an effective sustainability strategy to mitigate risks and capitalise on opportunities.

Key risks

Volatile energy prices

Why is this a risk?

Higher energy costs can endanger the profitability of projects, production and/or the company

Responsive action

- Extensive own production of renewable energy
- Sharing energy community approach
- C-energy's "Energy As A Service" business model

Human rights violations in supply chain

Why is this a risk?

We want to be compliant with the law and are responsible for our supply chain. Projects with human right violations might be (partially) stopped as seen in other cases in 2022 (not at Cordeel) which leads to delay of realisation and might lead to extra costs or legal consequences.

Responsive action

- Check-in at work system to monitor business partners present on site and their legal status
- Code of Conduct for business partners
- Due diligence for business partners
- Transparent collaboration with authorities
- Dedicated employee to check subcontractors on site

Disturbed supply chain

Why is this a risk?

Delay of materials can cause production or construction projects to be delayed as well, which might cause penalties.

Responsive action

- Adaptation of design
- High knowledge of the market of project leaders to find viable alternatives
- For batteries: R&D skills for adaption of models
- Dedicated purchaser fluent in the language of the country of the origin of raw material

Changing regulations

Why is this a risk?

Changing regulations might interfere with current operations causing an increase/ decrease of the project values. Possible legal consequences of not complying with regulations.

Responsive action

- Dedicated Group Sustainability Officer to follow-up changing regulations in terms of sustainability and taxonomy
- Dedicated employees for Quality, Environment & Safety for domestic regulations in their fields, with one of them being a certified European Energy Manager.

Embodied carbon

Why is this a risk?

Especially stock-noted companies are starting to define targets for the embodied carbon of their buildings. Denmark is the first country to define a maximum of embodied carbon for buildings. By not complying with this, there is the potential to lose projects in the future.

Responsive action

- Big impact on the value chain due to its own precast production and own R&D.
- The formula of precast concrete has already been adapted and the CO_2 emissions therefore reduced.
- Internal knowledge about the footprint on material is being increased.
- Discussion with project partners to reduce the impact of our buildings.

War for talent

Why is this a risk?

Without talented employees we cannot conduct business, projects and business development might get delayed. One of the biggest risks for Cordeel is not finding (suitable) talent.

Responsive action

- A dedicated and high-performing team in the talent acquisition department.
- A strong employer brand
- Our vision and mission and the investments to make them become a reality is attracting talent.
- A strong focus on improving the work environment and employee well-being.

Sustainability strategy

Cordeel Group has taken a proactive approach to sustainability, integrating it into our core values and long-term strategy.

Taking our responsibility

Our vision is to become the happiest company to work for and with, while our mission is to transform the future as the fastest builder by focusing on innovation to create smart, energy-efficient and low-carbon solutions. These ideals serve as the bedrock for our sustainability strategy, which is not a distinct strategy but rather integrated into our core operations. At Cordeel, we build homes, workplaces, and shared spaces where people can be happy. But we do much more than that.

As one of the largest construction companies in Belgium, we recognize our responsibility towards the environment and local communities. Our aim is to approach sustainability in a holistic way, balancing our company objectives with our impact on society and the environment. Through our buildings, products, and services, we aim to contribute to a better, more sustainable world.

Our sustainability strategy is built upon five pillars, each containing specific focus areas linked to programs and actions.

Accelerating energy transition

Energy monitoring | Energy storage | Energy sharing | Electrifying industry

Sustainable buildings & products

Decarbonisation | Circular buildings | Bio-based products

Sustainable operations

Water consumption | Waste reduction | CO_2 Reduction | Digitalisation

Our people

Safety | health & well-being | attract & retain talent

Impact on society

Governance | Local communities | Remediating soil | Philanthropy

Key sustainability achievements in 2022

In 2022, Cordeel Group and its subsidiary companies have accomplished some key sustainability achievements that showcase our efforts towards a more sustainable future as we strive to reduce our carbon footprint and create a better work environment for our employees.

Construction of energy hill in Temse has started

The construction of our energy hill on the premises of our headquarters in Temse started in 2022. Energy hills **utilise the potential energy of water to generate electricity**. They are a promising and innovative solution for energy storage and management, as they provide a reliable source of renewable energy that can be easily stored and used when needed. Ours is scheduled to be operative by 2024.

Mobile batteries to reduce emissions on-site

In order to replace CO_2-emitting generators on the construction sites, C-rental ordered 100 mobile construction site batteries from our subsidiary C-battery. The first battery was delivered at the end of 2022, in 2023 we will roll out the mobile batteries at scale. By replacing CO_2-emitting generators with mobile batteries, C-rental is taking a step towards a more sustainable and environmentally friendly construction industry.

Electric machinery as an alternative to diesel-powered equipment

Apart from mobile batteries, C-rental has also taken measures to reduce emissions on construction sites by investing in electric machinery. The company purchased five Volvo L25 Electric Wheel Loaders, which have the same power as a diesel-powered wheel loader, but produce no emissions. Furthermore, C-rental has integrated several electric scissor lifts and telescopic boom lifts by Zoomlion into its fleet. By using electric machinery, C-rental is not only helping to reduce the carbon footprint of the Cordeel Group and its customers, but also creating a quieter and more efficient work environment for its employees.

– 89%

Cordeel Nederland switches to renewable diesel (HVO100) for all its construction sites

Based on the consumption of fuel on-site in 2022 in litres, we reduced our carbon emissions for these fuels by 89% (compared to 2021) thanks to shifting away from standard domestic fuel oil towards HVO 100.

Ecovadis silver rating as external recognition

In 2022, Imtech achieved a silver rating from EcoVadis for its sustainability efforts, with a score of 60 out of 100 possible points. This places us on par with or above 80% of the companies evaluated on EcoVadis, reflecting our ongoing efforts to advance sustainability across the four EcoVadis pillars:

- environment
- labour & human rights
- ethics
- sustainable procurement.

EcoVadis is a global network of over 100,000 rated companies and the world's leading provider of business sustainability ratings.

Pilot case material passport

Getting insights into the materials that are built in our buildings is key for us, as we believe that buildings are material banks for the future. For Montea, we used the platform Madaster to create a material passport for one of our projects as a pilot case. More info on this project can be found here.

Code of Conduct implemented

In order to strengthen our governance we implemented a formal code of conduct in the organisation.

Hemp remediates PFAS-contaminated soils and serves as sustainable building material

C-biotech grows industrial hemp plants on PFAS-contaminated soils. The plants' deep roots absorb PFAS which is stored in the plants' leaves and heads. The stems stay pollution-free and are extremely suitable for processing into durable and strong building materials. At the end of 2022, the first harvests took place and the prospected results were confirmed by the University of Hasselt.

Shareholding in microwave technology taken to electrify industry

C-energy has taken a shareholding in MEAM, short for 'Microwave Energy Applications Management'. The Belgian company develops smart, low-carbon solutions for the electrification of various industrial processes using industrial microwave technology.

Signed agreements

C-concrete signs Flemish Concrete Agreement

The production of green and circular concrete is on the rise, but acceleration is needed. With the Flemish Concrete Agreement, the industry wants to remove administrative and technical obstacles to realise this ambition. Ambitious objectives have been set up, like the reduction of CO_2 emissions from the production of concrete by 50% by 2030.

Sustainable Development Goals

The Sustainable Development Goals of the United Nations provide a shared blueprint to achieve a more sustainable future for the planet and people. The 17 SDGs and their 169 sub-goals are a call to action to tackle the biggest challenges we face world-wide.

Cordeel and the Sustainable Development Goals

At Cordeel, we use the SDG framework as a guide for our own holistic sustainability approach. As an impact-driven construction company, we aim to go further than just reducing our carbon footprint or waste.

Although it is our ambition to address each and every SDG, we are aware that we cannot contribute to all 17 SDGs in an equal way through our processes alone. We decided to work on the SDGs to which we cannot contribute with our core business through philanthropic efforts.

The circle indicates to which degree we can contribute with our business to each of the 17 SDGs.

Materiality matrix

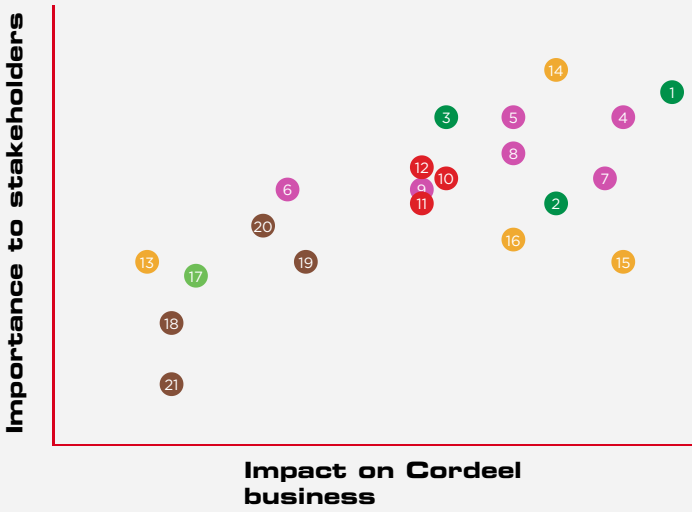
In 2022, we assessed our most material topics using a materiality matrix for the first time. It helped us to better identify and understand the importance of specific ESG topics for our stakeholders.

Methodology

We created a list of 33 ESG topics, which we compiled by analysing material topics used by ESG rating agencies and other companies in our sector. Our Sustainability Committee narrowed that list down to **21 ESG topics** that were most relevant to our business, and we grouped them into **6 categories**.

To gauge the importance of these topics, we conducted an **anonymous survey** with 90 of our most important external stakeholders (including customers, financial institutions, suppliers, cities & municipalities, social partners) and 30 internal stakeholders (senior management and Board Of Directors). Based on their knowledge of Cordeel and our industry, as well as their expectations for the future, we asked them to rate the significance of each ESG topic. The resulting materiality matrix was then validated by our Board of Directors.

Most material topics



Accelerating the energy transition

1 Energy efficiency
2 Innovation
3 Renewable energy

Governance

4 Anti-bribery
5 Ethical behavior
6 Human rights in supply chain
7 Ownership & control
8 Transparency
9 Data security

Sustainable operations

10 Waste reduction
11 Water consumption
12 Carbon emissions

Our people

13 Diversity
14 Health & safety
15 Talent attraction & retention
16 Talent development

Impact on society

17 Local community engagement

Sustainable buildings

18 Biodiversity
19 Life cycle assessment
20 Modular & circular principles
21 Smart cities

Sustainability Governance

Clearly defined roles and responsibilities make sure that we achieve our sustainability goals.

In 2021, we established a sustainability committee responsible for **defining and setting our organisation's sustainability goals**. The sustainability committee convenes quarterly to assess progress and oversee the execution of the strategy. It comprises members from diverse businesses and service centres who provide guidance to the focus groups leading our sustainability efforts and translating them into practical actions.

The focus groups, composed of multidisciplinary teams from different entities and departments, **report on their performance and progress towards the defined targets** regularly.

Annually, the Board Of Directors receives updates on the implementation progress of our sustainability strategy. They review and endorse the set targets and provide feedback on the strategy.

Members of the sustainability committee

Filip Cordeel

CEO Cordeel Group (M)

Laurence Gacoin

CEO C-energy and C-innovation (F)

Permanent representative of Nova LaGa

Erik Groes

CEO Imtech (M)

Maaike Pots

HR Director (F)

Kevin Van Hoe

QESH Manager (M)

Stijn Rynwalt

Group Legal Counsel (M)

Permanent representative of BV SRL

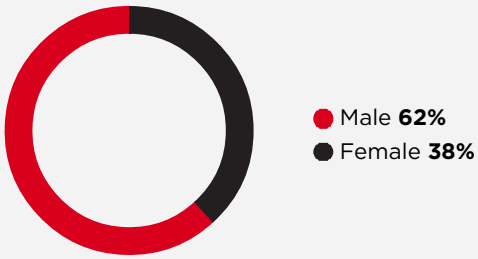
Aurélie Cordeel

Strategic Change Manager (F)

Simon Maillet

Group Sustainability Officer (M)

Gender diversity in the sustainability committee



Employee engagement

In November 2022, we conducted an employee satisfaction survey to assess engagement levels and identify potential areas for improvement.

Key numbers

The satisfaction survey was distributed to 1,543 employees located in Belgium, with 701 employees completing it, resulting in a response rate of 45%.

All business units participated, and both blue and white-collar workers completed the survey.

87%

feels proud to work for Cordeel

77%

knows the values, mission and vision of Cordeel Group

73%

feels connected to the organisation

90%

thinks their work offers sufficient opportunities for independent thinking and action

89%

enjoys doing their job

88%

feels they are making a clear contribution to the company result

77%

thinks they have a good work-life balance

73%

thinks there's an open working climate at Cordeel Group

Key areas in which we commit to initiate improvement efforts

- Creating more togetherness within Cordeel Group: Increase the sense of togetherness within the group by having the different companies take more joint actions and, for example, launching a programme to do sports together.
- Creating a transparent talent development policy: Providing a clear overview of training courses that can be taken, having opportunities for advancement and being given sufficient opportunities and time to share knowledge and experiences with colleagues.
- Striving for open and transparent communication
- Increasing participation in the satisfaction survey

Safety

Accidents can happen quickly, especially in the construction industry. To prevent harm, safety is our first priority. We provide ongoing training to our staff, prioritise programmes aimed at enhancing safety awareness and behaviour, conduct regular workplace inspections and carefully select subcontractors who prioritise safety in their work.

Certifications & standards

The VCA safety management system provides a comprehensive approach that promotes consistency across the Cordeel companies*, with the goal of decreasing the number of incidents and accidents.

We are proud to be known for the high quality of work we provide. Each of our employees is dedicated to their work, and our QESH department strives for continuous improvement in everything we do. Our ISO 9001 quality management** system ensures a process-driven approach to all of our projects.

We train our employees to be environmentally conscious and go the extra mile in the areas of green technology, reducing our carbon footprint and social responsibility. The ISO 14001 certification*** provides a proper framework for these efforts.

**Cordeel Zetel Temse, Cordeel Zetel Hoeselt, C-metal, C-concrete, C-wood and C-rental are VCA certified.*

*** Cordeel Zetel Temse and Hoeselt, Cordeel Nederland, C-metal, C-concrete and C-wood are ISO 9001 certified.*

****Cordeel Zetel Temse and Hoeselt, Cordeel Nederland, Imtech Industry, C-metal, C-concrete and C-wood are ISO 14001 certified.*

Raising awareness

We have a proactive safety policy that is focused on prevention. Prior to beginning work, our employees always receive extra safety instructions regarding the task at hand. We carry out a last-minute risk analysis (LMRA) along with an inspection of the environment, and create a secure and healthy workplace for our own personnel and all other workers on the site. Regular toolbox meetings and the communication of our 10 lifesaving rules help to raise awareness and prevent accidents.

Replacing harmful chemicals

Exposure to harmful chemicals can cause serious health issues, including respiratory problems, skin irritation, and various other illnesses. Many harmful chemicals are toxic and can persist in the environment for long periods of time, contaminating soil and water sources and harming wildlife and ecosystems.

Replacing these chemicals with safer alternatives helps to protect the environment and its natural resources and safeguards the health and well-being of workers. We are currently collaborating with a third party to evaluate the chemicals used at each of our work sites and replace them with bio-based products, which will be safer for humans and the environment.

Safety day Temse

In 2022, we held a safety day for all companies located on the site in Temse, namely Cordeel zetel Temse, C-production and the Service Centres.

The event comprised eight different stations, where employees were educated about fire extinguishing, first aid, LMRA, well-being, cyber security risks and driving risks.

Find a video online: https://www.youtube.com/embed/KTEMUIYTA7I?&controls=1

KPIs safety

* Measurement scope: own employees.
As of 2023, we will report on subcontractor-related incidents as well

	2022*
Number of fatalities as a result of work-related injuries	0
Number and rate of recordable work-related injuries	52
Number of days lost to work-related injuries and fatalities	1395

Our stakeholders

At Cordeel, we maintain ongoing communication with our numerous stakeholders, who are greatly affected by our actions.

Identifying our stakeholders

At Cordeel, we believe that transparency builds trust and that we can learn from diverse perspectives. That is why we maintain ongoing communication with our numerous stakeholders, who are greatly affected by our actions.

As a company, we strive to set a positive example by communicating openly and welcoming constructive feedback, as we believe this helps us grow and improve.

How do we engage our stakeholders?

Stakeholder	Mode of engagement	Frequency
Customers	Creation of a long-term partnership	ongoing
	Each site has its dedicated project leader	ongoing
	Update on innovations and performance	occasionally
	Participation at events	occasionally
Employees	Operational meetings	daily scrum, weekly, monthly
	Strategic meetings	quarterly
	Culture assessment & improvement	quarterly
	Employee evaluations	annual
	Satisfaction survey	annually
	Teambuilding	annually
	Training to sharpen skills	ongoing
Industry associations	Membership meetings	occasionally
	Thematic events	occasionally
	One-to-one meeting	occasionally
Financial institutions	Direct contact with account managers	regularly
	Events	occasionally
	Meeting with management (roadshow)	annually
	Update on financial performance	bi-annually
Suppliers & subcontractors	Evaluation of cooperation	yearly
	Ratings	project-based
	Contacts to improve long-term partnership	ongoing
Cities & municipalities	Sharing knowledge	occasionally
	Contributing in local initiatives and think thanks	occasionally
	Transparant project-related communications	ongoing
Social partners	Updates on company performance and topics related to employees	monthly
Authorities	Certifications & audits	annually
	Project-related: transparant communication	ongoing

Stakeholder	Mode of engagement	Frequency
NGOs	Support and membership in initiatives	occasionally
	Communication via various channels (online, press releases)	ongoing
Society	Communication via various channels (online, press releases)	ongoing
	Partnerships with schools and universities	ongoing
	Construction sites contact details	ongoing

Local community engagement

As a construction company, we recognise that we have an impact on the areas we're working in. During the construction phase, there may be noise and other inconveniences that can affect the neighbours. To promote positive relationships, we prioritise open communication. In the future, we are committed to further strengthening these relationships by sponsoring initiatives aimed at improving our engagement with the community. Additionally, we are actively working towards electrifying our construction sites to minimise any negative local impact. We also support local organisations and proactively engage with municipalities and cities. We do this to gain a better understanding of their needs and visions for the future, as we believe this is crucial to fostering mutual respect and positive outcomes for all involved.

The opening of our construction sites to the public

Throughout 2022, we opened our construction sites to the public in both Belgium and the Netherlands, providing a unique opportunity for community members to view ongoing projects in their neighbourhoods. Over 900 visitors took advantage of these open days, gaining insights into our innovative constructions methods and practices.

One noteworthy occasion was the “Open Wervendag” (Open Sites Day) held in May, during which over 200 people visited our Living Tomorrow site in Vilvoorde. Amongst the attendees were Flemish Minister for Mobility and Public Works Lydia Peeters and Embuild Vlaanderen Director-General Marc Dillen. Visitors were able to witness first-hand how we are incorporating smarter, more sustainable and safer construction techniques into our work. C-energy and C-battery showcased some of their innovative solutions, including our mobile construction site battery.

Find a video online: https://www.youtube.com/embed/daBwVzujZtw?

Sharing knowledge

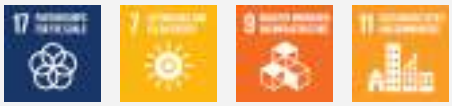
We are happy to share our expertise on sustainable construction and the energy transition. At our headquarters in Temse, we hosted over 400 visitors to show them our state-of-the-art production facilities and innovative products in the showroom.

Green Deal Circulair Bouwen

Cordeel is committed to sharing practical experiences with other construction companies, construction material producers, local and regional authorities, private developers, researchers and other organisations in the learning network ‘Green Deal Circulair Bouwen’. Through collaborative experimentation, we aim to test circular principles in practice and uncover any bottlenecks. Cordeel Temse has joined the Green Deal Circular Building initiative and used the renovation of the Multi project located in Brussels as their pilot project for the initiative.

Flux50

Flux50 fosters collaboration across the energy, IT and building sectors to enhance the competitiveness of the Flemish smart energy industry during the transition to low-carbon systems. As a member of Flux50, Cordeel plays a central role in the energy field. We are involved in two Flux50 projects: Cordeel Business Park 4.0 and City Poles.



Keynotes and debates

Our colleagues regularly participate in events as keynotes speakers and panellists. At the Reality Belgium forum on 'Soaring Energy Costs and the Impact on the Real Estate Market', Laurence Gacoin (CEO C-Energy) shared her insights on how sustainable building solutions can contribute to a sustainable energy policy.

Industry associations and organisations

- Smart Buildings In Use
- Embuild
- Duurzaam Gebouwd
- PropTech
- CO_2-prestatieladder
- TWEED (Technologie Wallonne Energie – Environnement et Développement durable)
- Belesco
- ADEB-VBA
- VOKA
- EV Belgium
- Waterstof net
- Flux 50

Remediation of contaminated soil

Remediating contaminated soil helps providing communities with more healthy nature.

Hemp is able to remediate PFAS-contaminated soil

PFAS contamination is a major environmental challenge in the Belgian region of Flanders, as well as in many other regions. The conventional method of remediation involves excavating the soil and transporting it to specialised facilities, which function like washing machines. While effective, this process is costly and has the negative side effect of removing the majority of nutrients from the soil making it unusable for farmers.

In collaboration with the University of Hasselt, C-biotech undertook in-depth research on bio-based remediation methods, specifically using hemp. The research shows that **hemp roots absorb PFAS and nitrate** and store them in the plant's leaves and heads. The stems of the plant remain pollution-free and can be processed into durable and strong building materials.

The growing process of hemp is **very ecological**: the crops require minimal water and pesticide use, and can be harvested up to three times a year. Besides their purifying effect, hemp roots bring oxygen back into the soil and create space for water to penetrate deeper into the ground. Hemp plants also remove CO2 from the air.

C-biotech plans to grow industrial hemp on more than 30 hectares of land in 2023, in collaboration with cities and municipalities, private companies and project developers. We're actively engaging with various stakeholders to expand the surface area for industrial hemp cultivation.

Remediating heavily contaminated soil with microwaves

C-ground is utilising an eight-hectares water-bound facility in Zutendaal to store and remediate contaminated soil. Through the use of MEAM's microwave technology, a new, 100% electric treatment method is being developed to remove organic pollutants, including mercury from heavily contaminated soils.

Find a video online: https://reports.cordeel.eu/wp-content/uploads/2023/03/baros2a15_meam_def-1080p-2.mp4

Philanthropy

We are aware that our impact and responsibilities extend far beyond our core business. By giving back to communities in need and the environment, we demonstrate our commitment to making a positive impact.

River Cleanup

In partnership with River Cleanup, we organised a clean-up event at our Temse headquarters in August. River Cleanup is a global network organisation that aims to prevent plastic from reaching our oceans by cleaning rivers, promoting behavioural change, and transforming organisations.

As our headquarters is located along the Scheldt river, the clean-up event was an excellent opportunity to raise awareness about plastic pollution. A total of 35 employees of different Cordeel companies attended the clean-up and collected 240 kilograms of waste.

Toy fundraiser

In December, we organised a fundraiser to collect toys for children and families in need across various branches of the Cordeel Group. We donated the toys to local organisations in Temse, Drechtsteden and Bilzen.

Going the extra mile

In 2022, our team went the extra mile—quite literally—for charity:

- A group of 18 employees from Eletrotechniek van Hecke pledged to donate money for every kilometre they cycled to work, with the proceeds (**508 EUR**) going to the NGO Hartekamp.
- In May, 78 employees from different entities within the Cordeel group, joined the 'Roze Mars' event collectively walking a total of **14,500 kilometres** (equivalent to 18,394,420 steps) to support Pink Ribbon, an organisation dedicated to fighting breast cancer. Together, these 78 employees donated **921 EUR to Pink Ribbon**.

16 employees from Cordeel Nederland joined the Delta Ride for the Roses 'Midden-Zeeland', a cycling event aimed at promoting a world with fewer cases of cancer, more treatments, and a better quality of life for people affected by the disease. The employees were able to raise 2,500 EUR for charity.

1,328 EUR

We collected a sum of 1,328 EUR through an internal year-end raffle. The raised funds were donated to 'De Warmste Week', which is an annual solidarity campaign organised by VRT, the Belgian national public-service broadcaster, in the week leading up to Christmas. The campaign's goal for this year was to help underprivileged people.

Decarbonisation of buildings

Buildings have a significant impact on global greenhouse gas emissions and play a major role in contributing to climate change. According to the International Energy Agency (IEA), the building sector accounted for 39% of global CO2 emissions in 2019. The energy used for heating, cooling, lighting, and powering appliances in buildings is the primary source of these emissions. Apart from operational carbon emissions, embodied carbon emissions from the production of building materials, construction, and demolition also contribute to the building sector's carbon footprint. For instance, the production of cement, a key ingredient in concrete, is responsible for approximately 7% of global CO2 emissions.

39%

of global CO2 emissions were accounted for by the building sector in 2019

7%

of global CO2 emissions are attributed to the production of cement

Considering the growing demand for energy in buildings and the expansion of the building sector, it is crucial to reduce its carbon footprint. This can be achieved through the implementation of **energy-efficient technologies**, the use of **low-carbon building materials**, and the adoption of **renewable energy sources**. At Cordeel, we are aware of the challenge and see the many opportunities and devolved several solutions to tackle the problem.

Source image.

Measuring the carbon footprint of our building

We believe that buildings are material banks for the future.

As one of the first Belgian companies, we have incorporated **Madaster** to create material passports for our projects. By registering building materials on the platform, we can automatically create **a unique material passport for each building**. This passport shows comprehensive information about the materials and products used, their impact on circularity and the environment, and the potential residual value they hold.

With this transparent tool, we can evaluate the sustainability and suitability of certain materials and assess their impact on the building.

Our goal is to create a material passport for every building with a BIM model by 2024. In 2023, we will train more of our colleagues to use the platform effectively and accelerate our efforts towards achieving this objective.


Mass
22.75 kt
Circularity
51 %
Detachability
74 %
Embodied Carbon (GWP)
5.3 kt
CO_2e

Decreasing the embodied carbon of our buildings

Embodied carbon refers to greenhouse gas emissions generated during the production of building materials and construction including transportation and disposal. This carbon is essentially stored within the building materials and is released throughout their lifecycle. Embodied carbon is an important factor to consider for sustainable building practices, as it accounts for a significant portion of a building's overall carbon footprint.

At Cordeel, we are committed to reducing the embodied carbon of our buildings. By carefully selecting durable and sustainable materials, we build future-proof constructions for our customers. Parts of the industrial buildings we realise are built with wooden beams. Another important approach is the usage of substitute cementicious materials (SCMs) in our green concrete's composition

Green concrete

Green concrete

Structural components like columns, beams, walls and floors have a significant impact on the embodied carbon of buildings. We aim to industrialise the building process as much as possible and use concrete precast elements for structural components, prefabricated by C-concrete.

In 2018, C-concrete used 70% CEM I and 30% CEM III cement for our precast concrete elements. CEM I contains 100% cement clinkers which results in significant CO_2 emissions. To reduce these emissions, we made it a top priority to reduce the cement clinker level in the cement compositions that we use at C-concrete.

Over the past three years, we have conducted intensive research and testing to develop alternative concrete mix formulas that minimise the use of cement. Our aim is to reduce the use of cement, which is responsible for 7% of the global CO_2-emissions, as much as possible.

“When we talk about ‘green concrete’, we focus on reducing the amount of cement – and therefore the embodied carbon – in our precast elements as much as possible.”

This is no fixed recipe, but a continuous improvement and commitment to keep lowering our embodied carbon in our concrete end-products.

Green concrete

In 2022, we successfully produced precast elements with CEM III as the main cement type, which led to a significant reduction in embodied carbon emissions.

Compared with the concrete mix applied in 2018, we reduced the CO2-emissions of our precast elements produced by C-concrete with over 650 tons in 2022 (-7.4%).

Our current standard formula is still within the BENOR norm, which gives us a competitive edge in the market. In 2023 we will continue to adapt this formula, to decrease the amount of cement clincker even further.

In 2022, we also achieved a major R&D milestone by producing precast elements completely cement-free. However, due to the lack of normative regulations for this type of concrete, it is challenging to use it in our standard buildings. Nonetheless, we have tested the performance of the elements and will continue to improve the product.

We continue to reduce cement content by using alternative binders, substitute materials, additives, particle size optimizations, etc. and continuously adapting the formula of the concrete we use. Our granulate recycling installation also helps us to recover the granulates from our excessive unhardened concrete, thus reducing our concrete waste and the loss for virgin materials. Additionally, we're optimising the local use of secondary sands and aggregates to reduce transport emissions.

In Q1 of 2023, we will install a new silo for blast furnace slags from the metal industry, which will accelerate the production of greener precast elements. Blast Furnace slags are recycled raw materials that are used to substitute cement clinker, thus help to reduce the embodied carbon in our concrete mixtures, towards a CO2-free future.

Signing the Flemish Concrete Agreement

Signing the Flemish Concrete Agreement

We are proud to be one of the signatories of the Flemish Concrete Agreement, which aligns with Cordeel Group's sustainability strategy. The Agreement is supported by a wide range of stakeholders including contractors, concrete producers, demolishers, associations, study offices, research centres and government organisations.

The Flemish Concrete Agreement sets ambitious targets for the reduction of CO_2-eq emissions from concrete:

- By 2030:
  - 50% reduction in CO_2-eq emissions from concrete applied in the Flemish Region compared to 1990 emissions.
  - the design of buildings should provide that concrete elements can be maximally reused or that the functions in the building can be maximally adapted.
  - No more substances will be present in buildings that prevent recycling.
  - Concrete released from demolition whose quality is suitable for the production of high-quality concrete aggregates reused in ready-mixed concrete, road concrete and/or precast concrete.
- By 2050:
  - Zero CO_2 emission per m^3 of concrete used in the Flemish Region

Decreasing the operational carbon of buildings

Operational carbon refers to the greenhouse gas emissions produced by the energy used to power a building's systems, including heating, cooling, lighting, and appliances.

As part of our commitment to reducing the carbon footprint of our customers' buildings, we recognise the importance of mitigating climate change by decreasing the energy consumption in existing buildings. While our new builds are already fossil-free, we see a significant opportunity to make a positive impact by renovating older buildings that tend to consume large amounts of energy. By taking steps to reduce operational carbon, we can help our customers achieve greater sustainability and contribute to a more environmentally responsible future.

Efficient and sustainable techniques

The main purpose of a HVAC system is to maintain a healthy indoor air quality through adequate ventilation with filtration whilst providing thermal comfort. However, HVAC systems are among the biggest energy consumers in a building.

To address this, we can implement efficient heating, ventilation and air-conditioning solutions that rely on renewable energy sources and low GWP ('global warming potential') air-conditioning systems. These measures can significantly reduce the operational carbon emissions of buildings. For instance, the new Imtech Naninne office building will be equipped with a CO_2-heat pump with a low GWP and low operational costs.

Case

Energetic renovation of Buildwise

Imtech was responsible for the HVAC installation and controls of the new Buildwise building in Zaventem, which replaced the outdated site. The project aimed to transform the existing building into **the most sustainable and energy-efficient office building possible,** taking into account both user comfort and the available budget.

The **HVAC** was updated by replacing the existing gas boiler with a fully geothermal concept with BEO field (borehole energy storage), heat pumps and a plate heat exchanger for passive cooling. This four-pipe system distributes both heat and cold throughout the building, which is delivered to the various rooms via new climate ceilings. The existing ventilation system, with a pulse group in the basement and an extraction group on the roof, was replaced by three air groups connected to the geothermal system with heat recovery.

Case

First climate-neutral building within the Port of Antwerp-Bruges

Imtech was tasked with implementing a new **primary heat generating system** for the service building located at Kallosluis, which is part of Port of Antwerp-Bruges.

The new heat-generating system is based on heat pumps and is expected to **reduce CO_2 emissions by 170 tonnes per year**. Additionally, the new installation is estimated to achieve an impressive **energy reduction of 50%** compared to the reference year of 2019. To further promote sustainability, the service building has purchased 100% green power and installed solar panels. Furthermore, a hydro turbine has been installed in the lock to generate additional power.

As a result of these efforts, the service building is the first climate-neutral building to undergo this transition as part of the Port of Antwerp-Bruges ‘fit for 55’ objective.

Maintenance

Imtech Maintenance is responsible for maintaining the technical installations under contract. Regular maintenance plays a crucial role in promoting energy efficiency, extending the lifespan of equipment, facilitating upgrades and retrofits and curbing emissions. This is particularly important for air-conditioning systems, where leaks can have a significant impact on CO_2emissions.

Accelerating the energy transition

C-energy strives to develop new sustainable technologies and applications that provide solutions to the challenges and opportunities presented by the energy transition. Our comprehensive range of solutions covers all aspects of energy management, including energy monitoring, storage, optimisation and trading. By adopting our solutions, our customers can pioneer new approaches to the continuously changing energy landscape, reduce their operational carbon and be at the forefront of sustainable energy.

Energy monitoring

Developed from the idea ‘to measure is to know’, C-scan is an integrated building monitoring system that goes beyond tracking water and energy usage., C-scan also keeps an eye on vital health and safety indicators for building occupants and staff. C-scan monitors:

- water consumption
- energy consumption
- indoor air quality (CO_2 concentration, particulate matter, ...)
- temperature range
- humidity
- light intensity
- water leaks
- indoor movement

Through the analysis of this data, we can offer more sustainable solutions and implement energy-saving measures, leading to a significant reduction in energy consumption and ultimately reducing the carbon footprint of the building.

Energy storage

Energy storage will play a vital role in any future-proof energy management strategy. Battery technology can help optimise the use of renewable energy sources by matching our customer's energy consumption with their energy production.

Optimising energy related costs

Our AI-driven peak shaving system can assist organisations in determining and controlling their maximum peak load. This will help minimise consumption spikes in consumption and optimise grid usage costs.

Additionally, our AI-powered energy trading system can automatically purchase and sell energy at the most profitable time, optimising energy-related costs.

Risk mitigation

The production of renewable energy sources can be rather unpredictable. A solid battery storage solution helps to get the most out of renewable energy sources and protects organisations against power spikes and eventual power outages.

Balancing the grid

Due to the growing number of electric vehicles and decentralised power generation solutions being used, grid stabilisation is a key energy challenge. Energy storage solutions can aid in balancing energy production and consumption.

Lithium-Ion

Lithium-Ion is the most common Energy Storage System currently on the market. Our subsidiary C-battery is an expert in producing both mobile and stationary batteries using Lithium-Ion technology.

The main advantages of our Lithium-ion battery are:

- Stationary and mobile solutions for indoor and outdoor usage
- Small footprint and high energy density
- Integrated fire protection
- Designed to be environmentally responsible and to minimise waste across their entire lifecycle
- Ideal for trading, auto-consumption, peak shaving, backup power

Capacity**: from 5 kWh to 3 MWh**

Find a video online: https://www.youtube.com/embed/o65U1URT3QE?&controls=1

Vanadium Redox Flow Battery

C-energy has a profound understanding and knowledge about Redox Flow Batteries.

A Redox Flow battery consists of a stack that determines the battery power (W) and storage of electrolytes that secures the battery capacity (Wh). The active component in the electrolyte is Vanadium.

Decoupling power and capacity make this type of battery particularly well-suited for storing and releasing energy from renewable sources such as wind and solar farms. Additionally, Redox Flow batteries offer many benefits in industrial applications.

Compared to lithium-ion batteries, they have a significantly lower cost per cycle and a longer life span of up to 25 years. The mining process for the basic raw material is more secure in the long term since the material is more abundantly available in the earth's crust than lithium. Redox Flow batteries can be recycled more easily and, in terms of safety, there is no risk of fire.

The only downside is that these types of batteries need more space, but this can be flexibly designed to suit the application.

Capacity: from 10kW to multi-MW systems

Hydrogen battery (electrolysing)

The principle of a hydrogen battery is very simple. The battery uses the surplus of energy from renewable sources to power electrolysis, which separates water into hydrogen and oxygen. The system stores that hydrogen and converts it into renewable energy whenever needed.

The main advantages of a hydrogen battery are:

- Zero greenhouse gas emissions when combined with a renewable energy source
- Long service life
- Long-term storage
- Very scalable solution
- Off-grid power potential (for instance to be used on construction sites)

Capacity**: from 300kW to multi-MW systems**

C-energy and Cordeel are setting up this supply chain in Temse, starting from local renewable power (PV), electric battery storage, electrolysis, hydrogen storage, hydrogen compression in a refuelling station in order to power up hydrogen cars. The refuelling station is already in operation, the next step is to install the other elements.

The picture shown is a render of the to be implemented installation in Temse.

Energy hills

Our patented Energy Hills are powerful hydro batteries that function as both energy assets and ecological landmarks.

This concept is highly versatile, suitable for developing open land plots, as well as (re)developing brownfields, (abandoned) industrial sites or historic landfill locations. A water-bound site is preferred to enable waterways for transport, minimising the need for trucking.

How does it work?

We construct a green hill with an altitude of up to 40 metres, with a water basin placed on top of that hill. The interconnected basins – on top of the hill and at the bottom – form a closed circuit to limit the impact on local surface water or groundwater dynamics.

Excessive renewable energy or imbalances on the electricity grid, are used to pump up water and store it in the basin on top of the hill as potential energy. This energy can be converted into hydroelectricity as needed.

The final design of each hill is adapted to fit in with the local fauna and flora, creating an integrated ecological habitat that blends in perfectly with its surroundings.

Pilot Project in Temse

Construction has been underway at our Innovation Campus in Temse since June 2022. The hill is growing daily and is expected to be completed in 2024.

We have three more permits for energy hills in the final phase, one of which will be located on the C-ground site in Zutendaal.

Some key facts on the hill in Temse:

- Difference in height: 21m
- Capacity: 3,000 m³ of water / 0.17 MWh
- Turbine power of 170 kW
- 85 MWh annual capacity

Energy sharing

Net-zero operations need community energy management

To create a passionate CO_2-free future, it's essential to power all kinds of sites with local renewable energy, no matter how complex. In today's power-driven world, powering a complex site with a low-cost, locally controllable energy supply is a competitive advantage.

However, installing renewables on-site can present new problems for operators. Unmanaged solar panels and turbines can lead to power surges that damage infrastructure, negating any potential energy savings. This operational and financial risk is discouraging sites from transitioning to net-zero on-site generation.

Cordeel's solution is the Community Energy System (CES). The CES designs and connects a site's energy generation and consumption into a smart local community of solar panels, batteries, smart metres and more. The system automatically promotes operational safety and energy savings.

Cordeel is leading community energy systems development in Europe

To meet Europe's needs and advance Community Energy Systems, Cordeel has taken the lead role in the Horizon Europe-funded project CREATORS. We are coordinating with experts in monitoring and simulation (I.LECO), emulation for digital twins (Typhoon HIL), and financing (ep group), to develop the next generation of on-site energy communities for CO_2-free energy management.

Starting in 2020 and ending in 2024, the partnership will support 20 energy communities in over 10 countries across Europe.

Demonstrating the future of energy management in Temse

To improve our understanding of community energy systems, Cordeel has turned its headquarters in Temse into an operational site to showcase a CES. The “De Zaat” CES in Temse will interconnect and coordinate the following:

- 2 MWp of rooftop ePV
- 1,5 MWh of planned battery storage
- A Hydrogen electrolyser to fuel Cordeel’s fleet of hydrogen fuel cell vehicles
- Vehicle-to-Grid (V2G) storage through Cordeel’s electric and Hydrogen vehicle fleet
- Pumped hydro through Cordeel’s patented Energy Hill

By implementing this installation, Cordeel will achieve a self-consumption rate of 70% for the community, resulting in a significant reduction in dependence on the external energy markets.

Bringing Community Energy Systems to our clients

Through its participation in CREATORS, Cordeel has positioned its C-energy division to offer community energy management through Energy as a Service. By requiring only a limited upfront investment, this support will make net-zero site operations accessible to complex sites across Europe.

Electrification of industrial processes

Sustainable and fast heating technology

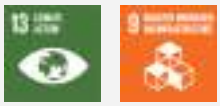
MEAM, which stands for 'Microwave Energy Applications Management', specialises in developing smart and low-carbon solutions for the electrification of various industrial processes such as heating, drying and pasteurisation. Industrial microwave technology can successfully heat suitable materials directly to the core without transfer losses or the need for heat transport mediums like air or steam.

This microwave technology aligns with our vision of the future, as it allows for the electrification of gas-driven heating processes, making energy transfer more efficient and faster while simultaneously reducing and even eliminating on-site emissions of CO_2, NO_2 and SO_2.

Moreover, the technology offers additional advantages such as the elimination of warm-up time and requiring less floor, making it more cost-effective to implement in terms of OPEX.

Stable energy supply

In 2022, C-energy acquired a stake in MEAM. Through our close partnership with MEAM, we are able to offer solutions that guarantee a dependable energy supply for their microwave installations and provide our clients with essential expertise and guidance during their transition period.



Find a video online: https://reports.cordeel.eu/wp-content/uploads/2023/03/baros2a15_meam_def-1080p-1.mp4

Vision, mission & values

As a family business, Cordeel wants to build strategic continuity for the next generation by making a positive contribution to the development of our world. We do our job smarter, more environment-friendly, and faster.

Vision

The happiest company to work for/with

We are committed to creating an environment where our employees are at their best and can grow while providing our customers with the best possible service. First and foremost, we want happy employees who in turn create happy customers.

We want our company to be a happy place, where people are inspired and come to work full of energy, enthusiasm and commitment. A place where every employee can experience a challenging professional career full of opportunities to grow and develop.

A place where employees feel valued and engaged and thus stay motivated all the time. A place that promotes both physical and mental health and where everyone is happy.

- We recognise our most valuable assets, our employees.
- We are committed to making a positive impact on the future.
- We create a safe and sustainable working environment.
- We focus on training and personal development.

Mission

Transforming the future as the fastest builder by focusing on innovation to create smart, energy-efficient and low-carbon solutions.

As a family business, we want to ensure strategic continuity for the next generation. We want to do meaningful business by making a positive contribution to the development of our world and contributing to a sustainable future with surprising innovations.

We continuously invest in the latest technologies, efficient energy solutions, materials and processes and we promote a culture of continuous improvement.

Moreover, we believe that building for the future means designing with flexibility in mind.

By working with like-minded partners, we ensure seamless project execution and strive to exceed our clients' expectations, while accelerating the transition to a cleaner and healthier future.

Values

None of us is as smart as all of us

We rely on a joint effort by bringing together different individual competencies to find the best solution and create happy customers through collaboration.

Transparency builds trust

We strive to be open, honest, and straightforward about our company operations and results to keep our employees, customers and stakeholders informed and involved.

Focus to accelerate

By working faster, smarter and with a clear focus, we want to deliver qualitative and on-time results and become the preferred partner for everyone who cares about sustainable building.

Be better every day

Good is not enough. We are dedicated to challenging ourselves every day and making continuous improvements that benefit the personal growth of our employees, the planet and the customer.

Can’t is not an option

With an open mind and a passion for innovation, we strive to build the future and find solutions for even the most difficult challenges.

Own the problem

Every problem holds the seed of its own solution. By taking ownership, we create an opportunity to learn in order to do better next time. We respond to every situation by looking for ways we can handle it, rather than saying it can’t be done.

Why is sustainability at the core of what we do?

In this section, we can learn directly from our CEO, **Filip Cordeel**, about our sustainability journey, the impact it has had on our business, and the challenges and opportunities that lie ahead.

Why is it important for us as a company to have a sustainability strategy?

Sustainability is not a stand-alone strategy, it is linked with the vision, mission and strategy of the Cordeel group. It is **at the core of what we do**. With a holistic sustainability strategy, we show that we are aware of the responsibility we have as a company and that we actively contribute to a better world.

I believe that investing in sustainability increases employee engagement, as employees take pride in working for a company that is committed to sustainability. This, in turn, increases motivation, leading to higher productivity and lower turnover of employees. In the long run, adopting sustainability practices will also save costs by reducing waste, energy, water and the use of sustainable materials.

We feel that the awareness of sustainability among our customers and governments is increasing. The **Corporate Sustainability Reporting Directive (CSRD)** and the EU taxonomy are important upcoming legislations to promote and define sustainability.

Although applicable to Cordeel only from the reporting year 2025, we are actively working on aligning with them earlier, as we know that this is important for many of our customers and we want to provide them with future-proof buildings, products and services.

Buildings have a big impact on global CO_2 emissions. How do you see Cordeel's role in it?

As one of the major players in the Belgian construction sector, we have a crucial role in reducing CO_2 emissions. By **choosing sustainable materials** like green concrete, energy-efficient designs and efficient construction management, we can contribute to a more sustainable future.

Implementing **renewable energy solutions** in our buildings, combined with an **Energy-as-a-Service** approach and energy-efficient HVAC techniques can help reduce the carbon footprint in the operational phase.

Reducing construction waste is crucial for us and we aim to achieve this through smart design, efficient construction processes and recycling and reusing materials.

We are committed to researching and developing innovative technologies and building methods that reduce the CO_2 footprint of our buildings and our operations, making sustained investments in this area.

By sharing our knowledge, we inform our partners about sustainable buildings and help them make different choices.

At Cordeel, we are strongly committed to innovation. Which highlights can we expect in 2023?

In 2023, the Cordeel Group will – once again – **prioritise innovation and sustainability**. We plan to instal an electrolyser at our headquarters in Temse to produce green hydrogen. We will also continue to work on the energy hill there.

We hope to receive our first shipment of industrial hemp products, for which we're currently undergoing research and testing. We have already introduced fluorine-free fire extinguishers and will accelerate the R&D efforts to develop more biological products for fire suppression, eliminating the need for PFAS.

Furthermore, we will start the tests for Art Couper, our innovative approach to concrete building and work on charging poles made from biocomposites.

An important milestone will be our adapted, faster C-fast system, which enables disassembly, reduces waste and accelerates on-site execution

We want to become the fastest builder. How do we approach that?

Apart from the innovative technologies mentioned, such as our adapted C-fast system and increasing modular construction, we believe in standardising our construction processes, improving supply chain management and assembling a well-tuned team of talented professionals.

Construction has a very diverse and complex supply chain, which is prone to delays and delivery bottlenecks. We strive to **maximise vertical integration** within our Group's many companies.

We already incorporated building precast into our business a long time ago, enabling us to transfer the construction process to a weather-independent factory and reduce on-site construction time. However, we recognise the need to continue innovating, and refining the processes rather than relying solely on the advantages that we have built up in the past.

Lastly, we want to continue to **attract talented people**, who like to think and work on smart and fast construction systems.

As a family business, we entered our fourth generation in 2022. What is the advantage of a family business and how important is it for you to create a long-term impact?

By investing in sustainability, e.g. by reducing our ecological footprint and creating a positive impact on society, we as a family business can make a meaningful impact.

Operating sustainably means **looking at the long-term consequences of decisions** taken on a financial and social level. We want to continue creating a healthy business that guarantees continuity and stability for its employees and business partners.

There is often a strong commitment with family-owned companies, as the family is strongly involved in business operations. **Faster decision-making** is an additional advantage of family-owned companies and is also true for us.

I would also say that family companies have a strong corporate culture, which helps attract talented employees. It's my role to preserve the heritage and values of the family business.

Our vision is to become “the happiest company to work for/with”. Can you explain more about it?

This vision contributes to a positive and sustainable corporate culture where the **well-being of our employees is central** and relationships with customers and suppliers are built on trust, respect and mutual success.

To make this vision a reality, our employees need to feel valued and engaged. This can be achieved through a healthy work environment, personal development opportunities, a good work-life balance, fair working conditions and open communication.

For us, it is crucial to work with customers and suppliers that share our vision. We are focusing on creating positive relationships, so it is important for us how we collaborate and whether our business partners treat our employees with respect. We like working together with ambitious customers who push us, as this can help us improve and grow.

Our suppliers and subcontractors can make a positive contribution too by operating sustainably, adopting ethically responsible practices and providing high-quality products and services.

Key targets

To make our mission of "transforming the future as the fastest builder by focusing on innovation to create smart, energy-efficient and low-carbon solutions" more tangible, we defined a number of concrete, shorter-term targets to follow up. In this way, we try to be as transparent as possible in our efforts and impact and will report on these ongoing actions in the next reports.

Circular buildings

materiality: modular & circular principles, innovation, carbon emissions

Goal	Deadline
Ambition: No demolition without urban mining of materials	2023
Bio-based materials - Conduct research where bio-based materials can be best applied, striving to commit to a target in our next report	2023
Reuse of materials - Conduct research where and how reused materials can be best applied, striving to commit to a target in our next report	2023
Every building with a BIM model has a material passport	2024

CO_2

materiality: carbon emissions

Goal	Deadline
100% green electricity for all locations	2023
Roll-out mobile battery containers on construction sites	2023
Report on scope 1 & 2 of complete Cordeel group (reporting year 2023)	2023
Report on the three most material scope 3 emissions (reporting year 2023)	2023
Ambition: Receive certification for CO2-prestatieladder level 5	2024
Report on scope 1-3 of complete Cordeel group (reporting year 2025)	2025
Ambition: CO2-neutrality scope 1 & 2 with reduction of at least 75% (compared with base year 2022)	2027
Ambition: Decrease the CO2 emissions of prefab concrete with 50% (compared to base year 2018)	2030

Water

Materiality: water consumption

Goal	Deadline
Monitor group-wide ground-water withdrawal and consumption of water on construction sites	2023
0% of pumped water from construction pits discharged into the sewer. Focus on reuse of water (return drainage or making it available for agriculture or citizens)	2026

Waste

materiality: waste reduction

Goal	Deadline
Increase our insights in the final processing of waste	2023
Increase the share of waste being reused or recycled by 10%	2023
Ambition: Zero-waste-production of production companies	2026

Land-use of our developments & biodiversity

Goal	Deadline
Started measuring the land-use of own developments: three projects started with a surface of 3,420 m² (footprint of buildings + outdoor pavings)	2022
Continue measuring our land-use and conduct research to find an approach to land-use and biodiversity protection/restoration, striving to commit to a target in our next report	2023

Governance

materiality: ethical behaviour, anti-bribery, human rights in supply chain

Ambition

Zero ethical breaches

Safety

materiality: health & safety

Ambition

Zero lost-time incidents

Attract & retain talent

Attracting and retaining talent is critical for Cordeel because it helps to build a strong and capable workforce that is essential for meeting the challenges of today's business environment and achieving long-term success. The aim of "transforming the future as the fastest builder by focusing on innovation to create smart, energy-efficient and low-carbon solutions" and our investments towards achieving this goal have become a significant draw for talented individuals. Both new and seasoned professionals alike have expressed that our company's strategy is a compelling reason for them to choose us as their employer.

	2022
Total number and rate of new employee hires during the reporting period	328
Total number and rate of employee turnover during the reporting period	15%
Net job growth Belgium	4.7%

*** Numbers for Belgium**

Collaboration with schools and universities

To promote and raise awareness for our work at Cordeel, we partner with schools and universities at a national level. In 2022, we hosted 50 internships and collaborated with several students on their bachelor's, master's and PhD theses.

Among the universities we collaborate with are UAntwerpen, UGent, UHasselt and KU Leuven.

Dual Learning

It is becoming increasingly challenging for schools to keep up with technological advancements in the workplace. The fundamental technological competencies that students acquire in school are often insufficient to be immediately applied in a company setting. As a learning organization, we want to make our experience and expertise available to schools and students to address this issue.

Through a dual learning program, the student is given the opportunity to familiarize themselves with the work environment in a comfortable manner, allowing them time and space to integrate and learn.

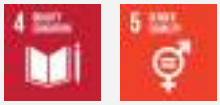
In this way, the student can expand their knowledge in a realistic yet protected work environment.

Youca action Day

In October, as part of the YOUCA Action Day, 12 secondary school students worked in various companies within the Cordeel Group. Along with over 14,000 other students, they swapped their classroom desks to work for a day to support charity. The wages they earned have been entirely donated to projects committed to making a difference for young people around the world.

Girl's Day – Cordeel Nederland

In 2022, Cordeel Nederland participated in Girl's Day for the seventh consecutive year. The initiative aims to encourage greater participation of girls and women in STEM professions. At our Zwijndrecht office, we welcomed 67 young women from Walburg College. We provided them with valuable insights into our family business and the various job opportunities available within a construction company.



Welcoming our new colleagues during the onboarding day

Our goal is to make sure that new employees feel welcomed and integrated into the Cordeel Group right from the start. As a part of our onboarding process, we organise a special day for newcomers, where they have the opportunity to get to know the company alongside a diverse group of employees from our various subsidiaries. This not only helps to broaden their network but also provides a chance to learn more about the Cordeel group as a whole. In 2022, a total of 200 new colleagues participated in the onboarding days.

To facilitate an even smoother onboarding process in 2023, we will introduce a pre-onboarding app where new employees can get to know the company and their team in advance.

Find a video online: https://www.youtube.com/embed/JOUX-c9egYo?&controls=1

C-coach as mentors

We have made adjustments to our mentoring programme so that each new employee is paired with a designated C-coach during their initial weeks and months on the job. The specific roles and responsibilities of C-coaches are clearly defined. These include among others:

- Giving all sorts of practical information
- Giving a tour of the building
- Explaining where relevant information can be found and how to use the company portal.

The C-coach program is mainly about making sure that the new colleagues have a good start and that they have an additional point of contact, next to their superior that can help out with all kinds of questions.

Personal Development

We invest in our people by offering training, on-the-job learning tracks and personal development plans to keep our employees on top of their game, motivated and engaged.

C-academy – talent development

Launched in 2022, the C-academy is a specialised training platform facilitating internal and external training for employees at all levels with the aim of promoting lifelong learning and fostering the growth of our workforce's talents. In 2022, 52% of our FTEs participated in external professional development opportunities.

In 2023, we plan to take our commitment to lifelong learning to the next level by implementing a new learning management system and having a dedicated team whose role it is to make sure that our employees can participate in the training to help them advance in their careers.

11.44

Average number of training hours per person in own workforce

52%

of our FTEs participated in external professional development or lifelong learning opportunities

Career development

At Cordeel, there are continuous – more informal – feedback moments throughout the year. It's also our ambition that all employees receive one formal performance review annually. At the end of 2022, the performance review process was adapted and is now applicable for the complete Cordeel group.

With this adaptation and the increased attention for the topic within the Group, we expect the number of employees that receive their yearly evaluation to rise substantially in 2023.

We also prefer internal promotions over new hires, so before publishing new vacancies, we always check whether there's a good fit within our own organisation.

73%

of FTEs participated in regular performance and career development reviews in 2022

3%

of employees have been internally promoted in the reporting period

Diversity

Cordeel is a truly international company with 1,797 employees from 45 different backgrounds and nationalities. We continue working to increase our diversity, through ensuring diversity of gender, age, education and disabilities.

45
Nationalities

1,797
Employees

Age

Average age: **43.10 years**

Age category (in years)	Number of Employees
< 24	85
24-29	197
30-39	447
40-49	440
50-59	497
> 60	131
Grand Total	1,797

Seniority

Average seniority **9.46 years**

Seniority category (in years)	Number of employees
0-5	848
6-10	337
11-15	211
16-20	142
21-25	84
> 25	175
Grand Total	1,797

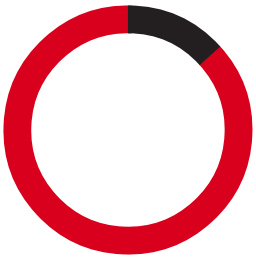
- Blue collar **873**
- White collar **924**

Blue/white collar

Grand total: **1,797**

Employees per country

Grand total: **1,797**



Male **86.8%**
Female **13.2%**

Gender

Gender pay gap

For 2022 a wage gap analysis was conducted for the firms represented on one of the work councils in Belgium. We investigated the gender pay gap on three levels:

- job level
- seniority
- level of education per company

Within the operational staff we do see negative pay gaps at some companies, meaning women earn more than men. This is the case at Imtech and C-metal. At Cordeel zetel Temse and C-concrete we see a negative pay gap both at job level and seniority.

At C-rental and C-supply the pay gap is visible both at job level, seniority and education level.

In general we have to conclude that the biggest salary gap between women and men can be found in the category of highly educated people. Male employees with a bachelor's or master's degree thus earn significantly more than women with the same level of education.

In 2022, we implemented salary scales per function which will limit salaries being too diverging from the start. Additionally, we implemented a clear policy on wage mark-ups, with the intention of making it unlikely that the salaries of a group will rise faster than the other. With the new contracts being covered and wage mark-ups being unified we aim to decrease the salary pay gap eventually.

Health & Well-being

Health and well-being are a major focus in our sustainability strategy because they play a crucial role in the success of both our employees and the company as a whole. By advocating for healthy habits, we aspire to enhance productivity and create a positive work environment. Our investment in our employees' health and well-being is a long-term strategy to ensure the sustainability of our business and differentiate ourselves as “The happiest company to work for”.

Encourage healthy habits

We want to encourage healthy habits among our employees. We do so by providing various measures to support their physical well-being. Through **ergonomic assessments**, we help ensure that our workers can perform their jobs safely and comfortably, reducing the risk of injuries.

Moreover, we offer discounts at the VITA Groep swimming pools to **encourage regular exercise**. As part of our commitment to promoting healthy and sustainable workplace practices, we provide **healthy and nutritious food and beverage options**. This includes the provision of fruit baskets in all of our offices, as well as the installation of two Dripl drink machines at our Temse location. These machines offer a wide range of healthy and refreshing beverages, including water, juices, and teas, without the use of single-use plastics. Given the positive feedback and uptake we have seen from our employees, we plan to further expand the Dripl programme across our other locations.

We also encourage the use of bikes. In 2023, we will be offering employees **bike leasing and discounts**. Several of our offices already offer bike parking, and we are planning on implementing them in all our locations starting from our HQ in 2023.

Fit at Cordeel

Sporting together has numerous benefits. It not only fosters relationships and improves team dynamics by building a sense of community and improving communication, but it can also **reduce stress and boost energy levels**, leading to enhanced mental well-being and increased productivity. Sporting together also provides a fun and enjoyable way for employees to stay active and **maintain a healthy lifestyle**, helping to reduce the risk of health problems and increase overall well-being. To promote internal connection and friendly competition, we created an internal Strava group where members could view the performances of their colleagues and participate in competitions.

Our HQ has a **fitness room** that offers a fantastic view of the Scheldt that can be used by the employees free of charge.

By providing these opportunities, we hope to encourage our employees to prioritise their physical well-being and enjoy the many benefits of engaging in sports with their colleagues.

Buddyfit

In 2022, we started a partnership with Buddyfit, the all-in-one wellness platform for the body and mind. As part of this collaboration, we provided all employees with free access to online courses they can join whenever and wherever they want.

Happy work environments

As a construction company, we recognise that our buildings have a significant impact on the health, well-being and productivity of those who use them. For this reason, we are committed to further working on improving the health and well-being of our employees and all building users in our working environment.

We are very proud that one of our employees has successfully completed the WELL training, making us the very first company in the Belgian construction sector to have an employee with this expertise. This achievement proves our commitment to building happy, healthy and sustainable buildings that improve the lives of those who use them. We will continue to invest in our employees and work to improve our own premises as we strive to be leaders in building design and construction for a more sustainable future.

Healthy indoor air

To enhance the quality of health and well-being in our offices, we have implemented bio-enhanced indoor air at our headquarters in Temse. In partnership with TakeAir, we have installed the latest Biospheric Air Treatment system, which uses biotechnology to capture and eliminate airborne pathogens in the HVAC system with a natural compound, while introducing beneficial organisms into the offices.

As a result, our indoor environment now replicates the microbial biodiversity found in the forest, creating a more favourable and balanced air quality that directly contributes to the physical and mental health of our employees.

The built-in C-scan sensors provide data on the system's performance and progress through TakeAir's Biospheric Dashboard. By breathing in healthy and fresh air, we aim to create a happy work environment for our existing and future employees.

TakeAir partnership

Find a video online: https://www.youtube.com/embed/q1h2TA7bRW0?&controls=1

Circular Buildings

The transition towards the circular economy is gaining traction in the construction industry. Buildings should be more flexible and ready to fulfil multiple functions, so early demolition can be prevented. Thoughtfully applying circular design methods asks for a reconsideration of common practices in the sector, but can prolong the lifespan of buildings drastically.

Modular and flexible buildings

We aim to make our buildings as future-proof as possible: adaptable, designed for disassembly and easy to maintain, with a modular design that extends the building's life span.

Our precast concrete elements are designed for disassembly

C-fast is our patented and innovative building system in precast concrete, with smart couplings for columns and prestressed floor slabs that are produced at C-concrete.

The major advantages of this system compared to the traditional methods are a much faster construction time and assembly (2 days per floor), lower construction costs, and a modular design that allows for later adaptations and disassembly.

C-fast is modular and barless. It can be used in both non-residential constructions as well as in buildings with mixed functions such as apartment buildings.

Insulation and circular facades

With insulation not being embedded in sandwich panels, but tucked in structural liner trays, the insulation and the facade finishing can be disassembled and adapted if needed. This approach will increase the value and adaptability of our buildings in the long run.

We utilised mineral wool for insulation in our projects because it has a smaller environmental impact than PIR insulation. We're currently looking into bio-based insulation materials, as we think this can be a solution to lower the embodied carbon of buildings even more.

Avoiding fixed interior walls and providing high headrooms

This will allow for easier adaptations and repurposing of our buildings in the future, as the built-in flexibility can give a second or third life to buildings, without major demolitions.

Reuse of materials

Resources on the globe are not endless, and with so many existing buildings, it's clear that we must find ways to conserve these resources. At Cordeel, we believe that buildings are material banks for the future. That's why **our goal is to create a material passport for every building with a BIM model by 2024**.

Urban mining

Our ambition is to take advantage of every opportunity to dismantle materials before demolishing a building. We have several projects in the pipeline that we plan to utilise to ensure that any resources that hold value for us or other players in the market are salvaged rather than wasted. We believe material passports will play a key role in facilitating urban mining.

Collaboration

Without an adequate supply of reclaimed material, large-scale projects can't happen. We recognize that there are several challenges involved in the reuse of materials, including logistical challenges and clients' demands. However, we believe that these issues can be resolved, and we actively collaborate with various organisations and stakeholders to enhance our contribution. This includes partnering with material banks, municipalities and cities and other companies.

Managing our overstocks and returns

We also give a second life to materials that return from construction sites, which is another important source of materials for us. These materials may not have been used for their original purpose due to modified orders or excess inventory and, in the past, they would have been discarded. However, at the beginning of 2022, we established an internal platform to collect and offer these items to our fellow project leaders.

In 2023, we plan to adopt a unified approach to ensure that we use our resources in an efficient way without having to purchase new materials.

Case

Multi – a showcase project to reuse materials

We are proud to have contributed to the redevelopment of Multi, a landmark located in the heart of Brussels. Our construction team strived for a BREEAM Excellent certification for the renovation project completed in 2022, with a strong focus on utilising recovered materials.

To achieve this, we repurposed the original Belgian blue stone and the terrace was laid with 400 recovered granite tiles. Moreover, we incorporated 1,300 metres of aluminium profiles from the Brouckère tower into the balustrades and light fittings of the renovated tower.

Imtech was responsible for the technical installations, and we also reused sanitary equipment. C-wood built the entry hall desk from reclaimed material.

We were inspired by our customers Whitewood & Immobel's ambitious vision for this project, which pushed us to prioritise the use of reclaimed materials and circular construction.

Bio-based materials

Bio-based materials will play an increasingly important role in our stride to reduce the embodied carbon of the buildings that we're placing.

Bio-based materials

Bio-based materials will play an increasingly important role in our stride to reduce the embodied carbon of the buildings that we're placing. Bio-based materials offer a plethora of advantages:

- Helps to reduce the embodied carbon of buildings
- These materials can actually sequester carbon
- Tends to be a healthier choice than the alternatives currently used
- Increased recyclability (and sometimes biodegradability) compared to fossil alternatives
- Lower pollution risk

It is our ambition to structurally increase bio-based materials in our projects.

Bio-based paint and coatings

Sobeltec is developing and producing bio-based paint, coatings and wood finishes under the brand name Ariomat. By focusing on the use of mineral raw materials, they replace polymers like polyurethane.

Bio-based firefighting equipment

With our innovative and environmentally-friendly equipment and systems, C-fire offers a sustainable solution for firefighting.

We have developed extinguishing fluids that are free of fluorine, a component of PFAS which is harmful to the environment. European legislation is in the making to phase out fluorine-free fire extinguishers fluids.

Our products are just as effective as previous systems but much more sustainable. Rather than waiting for legislation to be finalised and implemented in Belgium, we have already included products in our assortment that meet these requirements. By the end of 2022, we received the first shipment of fluorine-free fire extinguishers, which have been sold already.

To further enhance our product range, we have developed a 100% biodegradable fire extinguishing spray for small or early fires, called Control Fire. This product is also safe to use on humans as it does not cause irritation or harm if it ends up on sensitive areas such as the face, mouth or eyes. Additionally, Control Fire can also cool down and extinguish fires in batteries.

We take safety seriously, which is why all of our lithium-ion batteries of C-battery include fire extinguishing tubes, increasing the safety of the batteries.

In 2023, we will continue the development of our biodegradable fire extinguishers and will investigate how to improve the recycling of extinguishers, together with Flanders Make and other partners.

Find a video online: https://www.youtube.com/embed/vbpSrg5cahE?&controls=1

Hemp as a bio-based building material

In collaboration with the University of Hasselt, C-biotech underwent in-depth research on bio-based (soil) remediation methods, specifically using hemp. The research shows that hemp roots absorb PFAS and nitrate and store them in the plant's leaves and heads. The stems of the plant remain pollution-free and can be processed into durable and strong building materials.

There are many applications for industrial hemp. C-biotech focuses on researching and implementing those applications. As of 2023, the company will start developing its first products and measure their positive impact by means of life cycle assessments. These bio-based construction materials, which can often be created on a local level, will help decrease the carbon footprint of buildings and at the same time accelerate the transformation towards a circular economy.

Biocomposites: e.g. as raw material to produce traffic signs

Press wooden sheet material for sandwich panels: Sheet material made from hemp with the goal to create sandwich panels, filled with bio-based insulation.

Reducing water consumption

Water is a precious good, which we at Cordeel also benefit from thanks to the location of our headquarters in Temse. Yet, Europe is facing more and longer periods of drought, which we consider a serious problem.

Water consumption in 2022*

* Companies that we're reporting on: Wholly-owned companies of the Cordeel Group (including all subsidiaries in the Netherlands, Serbia, Bulgaria).

Water consumption: offices & production	4,373 m³
Water consumption: construction sites	27,458 m³
Consumption of rainwater	4,821 m³
Total	36,652 m³

Water consumption of our precast concrete production

The precast concrete plant of C-concrete in Temse is – in contrast to conventional precast production – not using fresh water but rainwater stored in our dry dock.

After production, we clean the residual water thoroughly and release it back into the dry dock for future reuse. We monitor the water quality constantly.

The dry dock is closed, so there is no connection to the river Scheldt. In this way, we make sure to not harm this precious ecosystem.

The C-concrete plant in Hoeselt is not using rainwater and therefore consumed 292m³ of fresh water in 2022.

4,821

m³ rainwater used for precast production

Groundwater withdrawal on construction sites

We are aware of the impact we have with our construction operations on the environment. We, therefore, strive to minimise this impact as much as possible.

The operations of our C-construct division sometimes ask for groundwater withdrawal to dewater construction pits, so we do have an impact on this resource as well. We try to limit this as much as we can.

By applying the principle of return drainage, pumped water is released back into the groundwater, preventing groundwater from sinking. We are trying to apply this measure as much as possible on our sites, taking into concern local legislation, making sure we don't return potentially polluted water and the relevant adapted measures that need to be taken into account.

We're not structurally monitoring our water consumption on construction sites yet, nor do we measure our groundwater withdrawal from the construction pits for every company. We will start this up in 2023 and **aim for 0% water discharged into the sewer by 2026**.

Groundwater withdrawal on construction site in 2022*

* Companies that we're reporting on: Companies from the C-construct division, excluding Cordeel zetel Temse & Cordeel Nederland

Groundwater withdrawal by pumping	78,025 m³
Return drainage	8%
Discharge of water: reuse	0%
Discharge of water: discharge to surface water	55%
Discharge of water: discharge into the sewer	37%

Target

2026

Monitor group-wide ground-water withdrawal and consumption of water on construction sites

2026

0% of pumped water from construction pits discharged into the sewer. Focus on reuse of water (return drainage or making it available for agriculture or citizens)

Reducing waste

The construction and demolition sector is responsible for about a third of all waste generated in the European Union. Here's what we do to tackle this challenge.

The construction and demolition sector is responsible for about a third of all waste generated in the European Union. Our big goals are to

- prevent anything from becoming waste as much as possible by increasing our focus on mapping what's inside our building (material passports) and using circular building practices (e.g. design for disassembly)
- Reduce the amount of waste throughout the entire Group

The industrialisation of the construction process is key to reduce waste: By prefabricating concrete structures in a weather-proof, industrial environment, we can decrease potential mistakes on-site and avoid waste being created in the first place.

Additionally, we will focus on splitting waste streams better and trying to find suitable applications for those waste streams. We acknowledge that what might be waste for us, might still be a valuable resource for others. By setting up partnerships across our value chain we will try to valorize our waste streams, keeping them in the loop as materials and therefore accelerating the circular economy.

Waste streams*

Our top-5 waste streams account for 91% of the total amount of waste and are therefore the most material waste streams.

** Companies that we're reporting on: Wholly-owned companies of the Cordeel Group (including all subsidiaries in the Netherlands, Serbia, Bulgaria)*

Construction and demolition waste	9,660 tons
Stony material	3,356 tons
Wood	1,965 tons
Metal	1,521 tons
Residual waste	1,407 tons
Other waste streams	1,677 tons
Total	19,585 tc

Origin of waste

Construction sites	**74.3%**
Production plants:	**20.4%**
Offices & warehouses	**5.3%**

Waste intensity

Waste produced in tons	Turnover in mio €	Tons per mio € turnover
19,585	896	21.86

Target

2023

Increase our insights in the final processing of waste streams

2023

Increase the share of waste being reused or recycled by 10%

2026

Ambition: Zero-waste-production of production companies

Zooming in on actions for waste reduction

C-concrete in Temse

- Ecofrog:
  - Is used for surplus concrete and splits cement, sand, grind & water
  - This results in a decrease of concrete waste
  - The water is thoroughly cleaned and released back into the dry dock
  - Starting from 2023, we will reuse the recuperated sand & grind in our operations
- The remaining surplus of concrete is used to produce jerseys
  - This approach was started at the end of 2022
  - We were able to reduce our concrete waste with 7.5 ton
- Steel waste from production is given to the supplier of connection bolts.
  - They are producing new bolts from it which we use for the transportation of our prefab elements.
  - Additional steel waste represents only 3-4% of the total
- Formwork wood waste:
  - Reuse as long as possible
  - Recycling of unusable pieces and pieces that are too small

Avoiding food waste

- A surplus of catering from meetings is distributed among employees of the respective building and/or stored in fridges which leads to happy colleagues.
- On the safety day in Temse in August there was a large surplus of pastry which was delivered to a local food bank.

C-supply: Collaboration with material banks

- Overstocks are given to material banks or thrift shops (“Kringloopwinkel”) so that the materials get a second life.
- Materials that return from construction sites of Cordeel zetel Temse and are not reused on other construction sites in a period of 6 months are also given to material banks

Reducing our carbon footprint

At Cordeel Group, we are dedicated to transforming the future by focusing on innovation to create smart, energy-efficient, and low-carbon solutions, and reducing our carbon footprint is a crucial aspect of this mission. As a major European player in the construction industry, we recognise that our operations have an impact on the environment, and we are determined to minimise that impact to the greatest extent possible. By taking concrete steps to reduce our carbon emissions, we are working towards a brighter, more sustainable future for all.

What do we report on?

Our carbon footprint reporting covers scope 1 & 2 emissions as well as business travel (scope 3) from companies in Belgium that are wholly owned by the Cordeel Group as well as the Cordeel subsidiary in the Netherlands. This organisational boundary is bigger than what we report on in the framework of the CO_2 Performance Ladder, which is currently focused on the operations of Cordeel zetel Temse as well as the companies located on our site “De Zaat” in Temse.

The emission factors we use to calculate our carbon footprint are the well-to-wheel emission factors that we use for the CO_2 Performance Ladder as well. These can be found at https://co2emissiefactoren.be/factoren

Due to the extended scope of companies we cannot report on the previous year for all the companies in the organisational boundary.

What are scope 1 emissions?

Scope 1 CO_2 emissions are direct greenhouse gas emissions that come from sources owned or controlled by a company, such as from our own vehicles, construction equipment or heating and cooling.

What are scope 2 emissions?

Scope 2 emissions are indirect greenhouse gas emissions that come from the generation of purchased electricity, steam, or heat consumed by a particular company or organisation. These emissions are generated by another entity, such as a utility company, but are a result of the energy consumed by the reporting company.

CO_2 Performance Ladder

The CO_2 Performance Ladder is a sustainability tool and certification scheme that empowers companies to reduce CO_2 emissions by implementing practical measures, fostering innovation and sharing knowledge. It is actively used as a criterion for awarding public contracts in the construction industry.

The idea behind the tool is to encourage the entire sector to establish a continuous management system for reducing CO_2 emissions, rather than working solely on project-based measures. As a result, the ladder delivers energy and cost savings for the company.

In 2021, the companies located at our site in Temse got certified at level 3 and we have been reporting on our CO_2 emissions and the progress since then. We aspire to achieve level 5, the highest level, during our upcoming re-certification in the summer of 2024.

Energy performance in 2022

*Measurement scope: Companies in Belgium that are wholly owned by the Cordeel Group as well as the Cordeel subsidiary in the Netherlands

Renewable or not renewable?	Type	Sum of kWh
Non-renewable	Purchased electricity	5,319,809.50
Total not renewable energy		5,319,809.50
Renewable	Purchased electricity	2,779,233.00
	Self-generated energy	1,685,957.00
Total renewable energy		4,465,190.00
Total electricity consumption		9,784,999.50

Energy intensity

*Measurement scope: Companies in Belgium that are wholly owned by the Cordeel Group as well as the Cordeel subsidiary in the Netherlands

Consumption of electricity in MWh	Turnover in mio €	MWh per mio € turnover
9,784.9	823	11.89

Temse as test case for our innovations on energy

With the C-energy division we accelerate the electrification of the construction sector, the operations of our customers and industrial processes. On the site of our headquarter in Temse, we test our innovations before go-to-market.

Currently, 2.07 Megawatts-peak (MWp) of solar panels are installed at our site in Temse. These solar panels reduce our dependence on fossil fuels and the grid, cut our carbon footprint, and are a prime example of how we are promoting renewable energy as an energy source of the future already today.

In 2022, we realised an auto consumption of 40% on our site “De Zaat” in Temse, which is a 10% increase compared to 2021.

We plan to structurally increase our auto consumption, e.g. with the planned battery storage projects on the site as well as the electrolyser that will be installed in 2023.

Our energy hill, which is expected to be completed in 2024 will provide additional energy storage.

Since the end of 2022, we have been testing and fine-tuning our EMS (Energy Management System), which is the backbone of all electrification projects. It is linking and steering our renewable energy production, HVAC system, batteries, charging poles and the to be installed electrolyzer and energy hill.

Energy target

2023

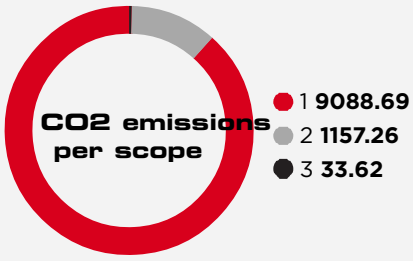
100% green electricity for all locations

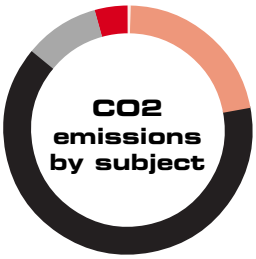
Greenhouse gas emission performance

*Measurement scope: Companies in Belgium that are wholly owned by the Cordeel Group as well as the Cordeel subsidiary in the Netherlands

Total CO2 emissions per scope

Scope	Tons CO2
1	9,088.69
2	1,157.26
3	33.62
Total	10,279





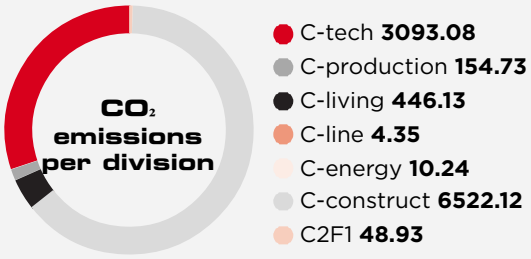
- Sport & pool facilities **446**
- Offices/production **1046**
- Fleet **6535**
- Construction sites **2219**
- Business travel **34**

GHG emissions intensity 2022

CO2 emissions in tons	Turnover in mio € for companies in scope	Ton CO2 per mio € turnover
10,279.57	823	12.49

CO2 emissions by origin

Scope	Top category	Tons CO2
1	Fuel	8,223.09
	Heating	793.96
	Process gases	1.61
	Refrigerants	70.03
1 Total		9,088.69
2	Electricity	1,157.26
3	Business Travel	33.62
Grand total		10,279



CO_2 reduction targets

2023	100% green electricity for all locations
	Roll-out mobile battery containers on construction sites
	Report on scope 1 & 2 of complete Cordeel group (reporting year 2023)
	Report on the three most material scope 3 emissions (reporting year 2023)
2024	Ambition: Receive certification for CO2-prestatieladder level 5
2025	Report on scope 1-3 of complete Cordeel group (reporting year 2025)
	90% of passenger cars are electrical
2026	100% of passenger cars are electrical
2027	Ambition: CO2-neutrality scope 1 & 2 with reduction of at least 75% (compared with base year 20

Emission-free construction sites

Fossil fuels needed on our construction site account for 16.5% of our total CO_2 emissions. When zooming into our C-construct division, fossil fuels account for more than 25% of their CO2 emissions and are therefore an important driver of our scope 1 & 2 emissions.

To achieve our ambition of emission-free construction sites, we focus on their electrification. To achieve this, we apply the following measures:

Measuring consumption of electricity

Measuring consumption of electricity

With our C-scan sensors, we monitor electricity consumption of the main consumers on construction sites. The sensors offer us a transparent view of the electricity needed for tower cranes, dewatering of construction pits, and on-site offices, depending on the time of the year and phase of the works. This provides us with the insights we need to take the right reduction measures.

Electric construction equipment

Electric construction equipment

Apart from using mobile battery containers to replace generators, we also invest in electric machinery. C-rental purchased five Volvo L25 Electric Wheel Loaders, which have the same power as a diesel-powered wheel loader but produce no emissions.

Furthermore, C-rental has integrated 70 electric scissor lifts and telescopic boom lifts into its fleet.

Use of biofuels

Use of biofuels

HVO100 is a synthetic biofuel under the EN15940 standard, consisting 100% of waste vegetable oils treated with hydrogen (HVO = 'Hydrated Vegetable Oil'). It emits 89% less CO_2 over the entire life cycle ('well-to-wheel') compared to regular diesel.

Cordeel Nederland uses HVO 100 for every construction site, which makes up for a reduction of CO_2 emissions of 280 tons, based on the difference in CO_2 emissions of HVO 100 compared with conventional diesel.

We consider HVO 100 to be a transition fuel towards full electrification of construction sites.

Grid connection

Grid connection

Where available, we use a grid connection with as much power as possible.

Transport by water

Transport by water

Although we have not reported on our scope 3 emissions in a structural manner yet, we have been actively working on reducing them for a while. The strategic location of Cordeel Group headquarters alongside the Scheldt river provides us with the opportunity to use the river for our transportation requirements. This is not only efficient but also lowers our scope 3 emissions and helps us avoid the congestion of Belgian highways.

We also rely on water transportation to deliver raw materials for our concrete plant and the soil required to construct our energy hill in Temse.

Most of the prefab elements used to build the Amazon warehouse on the Blue Gate site in Antwerp were transported via water and picked up at our dry dock.

In Rotterdam, we're currently building "De Boompjes" which is located right on the Maas river with the iconic Erasmus bridge in plain sight. By using water transportation, we were able to reduce 350 instances of traffic along congested roads in Rotterdam.

This approach is the ideal solution for inner-city buildings on the water. Not only did we significantly reduce truck traffic for residents and passers-by, but it also allows for the efficient use of the vessel to expand the limited construction site.

Mobile battery containers on construction sites

Mobile battery containers on construction sites

Since construction sites tend to have a limited or even no grid connection, this missing capacity is supplemented by diesel-powered generators. These have a negative impact on several environmental aspects such as noise, dust, nitrogen, ineffective fuel use, and high CO_2 emissions resulting from the use of fuel.

We noticed that we often use diesel generators with a capacity higher than required. The main reason is that tower cranes have power peaks for a very short period of time for which the capacity is dimensioned.

Our thorough measuring helped resize our mobile battery containers that will be rolled out in 2023. C-battery is producing these battery containers, based on lithium-ion technology and available in two versions, both built in 10ft containers: 100 kWh & 215 kWh.

C-rental already ordered 100 mobile batteries, which will also be available for third parties. In this way, we can not only decarbonize our own operations, but also support other companies in the sector to do so as well.

Eventually, these mobile batteries will make generators obsolete and have a major positive impact on the environment: less noise, less smell, less CO_2 and nitrogen emissions.

Greening the fleet

Fossil fuel plays a significant role in driving our CO_2 emissions. The fuel for our fleet accounts for 63.6% of our total CO_2 emission, a mere 6,532 tons. This makes the fossil fuel for the fleet the major driver of our CO2 emissions.

We're actively tackling these emissions and expect substantial declines in 2023.

Charging poles

In 2022, we installed many new charging poles across our sites, bringing the total number of charging poles on our premises to over 60.

Powerstation, our charging pole supplier, is constantly expanding its range of charging poles available.

Their latest generation of charging stations will allow users to charge their vehicles without the need for a charge card or app thanks to the automatic authentication technology. Powerstation has plans to further develop a V2G (Vehicle-To-Grid) capability at a later stage, enabling vehicles to inject power back into the grid and serve as a driving battery for a variety of applications.

Hydrogen cars

We firmly believe in hydrogen's potential as a sustainable energy carrier. We consider it a viable alternative for our bigger vehicles and for longer distances where battery technology may not be adequate.

Currently, we are running a pilot project using hydrogen-powered vehicles. To this end, C-energy purchased four Toyota Mirai hydrogen cars that are available as pool cars for employees who require transportation for site visits, customer appointments, etc.

In our Temse headquarters, we built our own hydrogen gas station. Our aim is to use the hydrogen that we produce through our electrolyser in this facility in the future.

Fully electric car policy

In 2022, we have adapted our car policy to exclusively use 100% electric passenger cars to reduce our dependence on fossil fuels and lower our CO_2 emissions. In 2022 alone, we ordered 118 electric passenger cars, with plans to increase this number in 2023. No hybrid or fossil fuel powered passenger cars were ordered in 2022. However, one of the main challenges we face is the speed of delivery of the vehicles and the availability of suitable electric vans with a sufficient range, especially for the technicians at Imtech.

Digitalisation

Highlighting our approach for the digital transformation.

Digital construction

BIM (Building Information Model) is an essential component of the digital transformation we (and our sector) are going through. The main objective of a BIM process is to enhance collaboration by setting up a central platform that serves as a single source of truth/information. Working with BIM has many advantages:

- It is the **perfect foundation for material passports**, with info on amongst others recyclability and circularity;
- It can **help to set up predictive maintenance schemes**, improving material and building longevity.

Our digital transformation focuses on creating data and data flows rather than individual drawings, documents and models. This prepares our organisation for the future.

The first step we are taking towards standardisation and uniformity is setting up a central platform, where all project-related information will be stored together.

To facilitate this, the construction site is equipped with a smart board, eliminating the need for printed plans during meetings with constructors. This is not only good for the environment but also convenient for planning changes. Additionally, construction sites are equipped with QR codes, allowing employees to access plans and documents whenever necessary on their phone/tablet.

Digital HR

Our HR service centre strives to maximise digitisation by leveraging providers such as Officient to enable employees to perform administrative tasks like requesting holidays and reviewing documents online. In 2023, we will introduce a digital learning management system to enhance employee development.

Furthermore, we are using DocuSign to finalise agreements for all entities within the Cordeel Group. This tool eliminates the need for printing, signing and rescanning documents, enabling us to process agreements completely digitally. By using DocuSign, we can save a significant amount of paper savings and finalise agreements faster and more efficiently.

Codes, policies & procedures

In 2022, we dedicated significant efforts to professionalising our ethical conduct practices.

Codes, policies & procedures

Code of Conduct for employees and directors

Code of Conduct for employees and directors

In July 2022, we implemented a Code of Conduct for our own employees and directors, followed by the publication of the Code of Conduct for our business partners in December 2022. Both codes will undergo annual reviews.

The Code of Conduct comprises:

- The **Workplace Conduct** which outlines expectations for employees' behaviour in the workplace, including professionalism, safety, and diversity and inclusion.
- The **Business Conduct** which outlines expectations for ethical business practices, including anti-corruption, fair competition, and protection of confidential information.
- **Environment, Health, and Safety** which outlines expectations for employees' behaviour to ensure environmental sustainability and safety in the workplace.
- **Reporting violations** which outline the procedures for reporting violations of the code of conduct and encourage employees to report any suspected violations.
- **Consequences of violations** which outlines the potential consequences for violating the code of conduct, including disciplinary action and termination of employment.

The Code of Conduct can be consulted here. In 2023, we will continue to implement and reinforce our codes, policies and procedures within the organisation through training and continuous awareness-raising initiatives.

Procedure for reporting concerns

Procedure for reporting concerns

We implemented a whistleblower tool to enable internal and external stakeholders to raise concerns anonymously.

For suppliers

For suppliers

Due diligence for subcontractors and suppliers has been set up. Additionally, we plan to introduce a sustainable purchasing policy and update our supplier evaluation questionnaire in order to ensure that our business partners comply with our codes and policies as well.

GDPR and data protection

GDPR and data protection

We attach great importance to the safe, transparent and confidential collection and processing of personal data. We place a high priority on protecting data belonging to parties that include our clients, subcontractors and suppliers against, among other things, loss, leaks, errors, unauthorised access and unlawful processing.

We composed a Data Protection Notice explaining how we collect and process personal data.

Check In At Work

Our internal website, Check In At Work (CIAW), represents an advanced form of digitization. This in-house development provides a completely digital solution for monitoring, reporting and follow-up of individuals present on a site, including subcontractors. CIAW also verifies all essential employment documents required for work in Belgium, ensuring that ethical and responsible work practices are maintained.

GRI content index

Cordeel Group uses GRI as a reference framework to create an all-encompassing report and to make sure the readers of this report find all information they need.

GRI Standard	Disclosure	Where to find the information?
GRI 2: General Disclosures 2021	2-1 Organizational details	Cordeel Group, Facts & Figures
	2-2 Entities included in the organization's sustainability reporting	Cordeel Group (the measurement scope for all data is always mentioned on the dedicated pages)
	2-3 Reporting period, frequency and contact point	1 January 2022-31 December 2022 / A report will be published annually / Contact point: Simon Maillet (Group Sustainability Manager) - sustainability@cordeel.eu
	2-4 Restatements of information	There are no restatements of information in this report.
	2-5 External assurance	This report isn't verified by a third party.
	2-6 Activities, value chain and other business relationships	Cordeel Group, Our stakeholders
	2-7 Employees	Diversity
	2-8 Workers who are not employees	/
	2-9 Governance structure and composition	Corporate Governance
	2-10 Nomination and selection of the highest governance body	Corporate Governance
	2-11 Chair of the highest governance body	Corporate Governance
	2-12 Role of the highest governance body in overseeing the management of impacts	Corporate Governance, Sustainability governance
	2-13 Delegation of responsibility for managing impacts	Corporate Governance, Sustainability governance
	2-14 Role of the highest governance body in sustainability reporting	Corporate Governance, Sustainability governance
	2-15 Conflicts of interest	Codes, policies & procedures
	2-16 Communication of critical concerns	Codes, policies & procedures
	2-17 Collective knowledge of the highest governance body	Corporate Governance, Sustainability governance
	2-22 Statement on sustainable development strategy	Why is sustainability at the core of what we do?, Sustainability strategy
	2-23 Policy Commitments	Key targets

GRI Standard	Disclosure	Where to find the information?
	2-24 Embedding policy commitments	Corporate Governance, Sustainability governance, Key risks & opportunities
	2-25 Process to remediate negative impacts	Codes, policies & procedures, Local community engagement
	2-26 Mechanisms for seeking advice and raising concerns	Codes, policies & procedures
	2-27 Compliance with laws and regulations	There were no significant instances of non-compliance with law in 2022
	2-28 Membership associations	Sharing knowledge
	2-29 Approach to stakeholder engagement	Our stakeholders, Employee engagement, Local community engagement
GRI 3: Material topics 2021	3-1 Process to determine material topics	Materiality matrix
	3-2 List of material topics	Materiality matrix
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Facts & Figures, Philanthropy
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Reducing our carbon footprint
	302-3 Energy intensity	Reducing our carbon footprint
	302-4 Reduction of energy consumption	Reducing our carbon footprint, Accelerating the energy transition
	302-5 Reductions in energy requirements of products and services	Accelerating the energy transition
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Reducing water consumption
	303-2 Management of water discharge-related impacts	Reducing water consumption
	303-3 Water withdrawal	Reducing water consumption
	303-4 Water discharge	Reducing water consumption
	303-5 Water consumption	Reducing water consumption
GRI 304: Biodiversity 2016	304-2 Significant impacts of activities, products and services on biodiversity	Remediation of contaminated soil
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Reducing our carbon footprint
	305-2 Energy indirect (Scope 2) GHG emissions	Reducing our carbon footprint

GRI Standard	Disclosure	Where to find the information?
	305-3 Other indirect (Scope 3) GHG emissions	Reducing our carbon footprint
	305-4 GHG emissions intensity	Reducing our carbon footprint
	305-5 Reduction of GHG emissions	Reducing our carbon footprint, Decarbonisation of buildings, Bio-based materials
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	Reducing waste
	306-2 Management of significant waste-related impacts	Reducing waste, Circular buildings, Bio-based materials
	306-3 Waste generated	Reducing waste
	306-4 Waste diverted from disposal	Although we're actively working on diverting waste from disposal, we haven't started measuring this yet.
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Attract & retain talent
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Safety, Health & well-being
	403-2 Hazard identification, risk assessment, and incident investigation	Safety
	403-3 Occupational health services	Safety, Health & well-being
	403-4 Worker participation, consultation, and communication on occupational health and safety	Safety, Health & well-being
	403-5 Worker training on occupational health and safety	Safety
	403-6 Promotion of worker health	Safety, Health & well-being
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Safety, Health & well-being
	403-8 Workers covered by an occupational health and safety management system	Safety, Health & well-being
	403-9 Work-related injuries	Safety
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Personal Development
	404-2 Programs for upgrading employee skills and transition	Personal Development

GRI Standard	Disclosure	Where to find the information?
	assistance programs	
	404-3 Percentage of employees receiving regular performance and career development reviews	Personal Development
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Diversity, Corporate governance
	405-2 Ratio of basic salary and remuneration of women to men	Diversity
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	Local community engagement, Philanthropy
	413-2 Operations with significant actual and potential negative impacts on local communities	Local community engagement, Philanthropy

Corporate Governance

In the past years, the Cordeel Group has grown rapidly: new companies were set up and acquired, and new divisions were established. We professionalised our organisation to be ready for further growth. In the second half of 2022, we started updating our corporate governance, in order to clarify roles and responsibilities.

Board of Directors

The Board of Directors meets on a monthly basis and is responsible for the long-term value creation of the group. They monitor the performance and the progress of the strategy they defined and steer where necessary.

Annually, the Board Of Directors receives updates on the implementation progress of our sustainability strategy. They review and endorse the set targets and provide feedback on our strategy. Two members of the Board of Directors are also part of the Sustainability Committee, highlighting the importance of this topic for our Group.

The board members qualify for their function due to expertise and in-depth knowledge in the construction and real estate sectors, finance and legal.

The members of the Board of Directors are:

- Filip Cordeel – CEO Cordeel Group (M)
- Dirk Cordeel – Director (M)
- Aurélie Cordeel – Strategic Change Manager (F)
- Erik De Bruyn – CEO Cordeel Nederland (M)
- Hilde Vangilbergen* – CFO (F)
- Laurence Gacoin** – CEO C-energy and C-innovation (F)

* Hilde Vangilbergen (permanent representative of Tsundoku Ventures)

** Laurence Gacoin (permanent representative of Nova LaGa)

Gender diversity in the board

Corporate governance charter

The aim of the upcoming corporate governance charter is to establish greater uniformity across all 100% controlled companies. This includes aligning the appointment period and member election process.

The charter will define clear boundaries for autonomy and responsibility, and require adherence to the four-eye principle for matters beyond the predefined limits (reserved matters). In addition, the new corporate governance regime will ensure that all signatures are placed with full knowledge of the facts.

The rollout of the new corporate governance regime has already started. The final corporate governance charter will follow in 2023.

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For contact information of the various companies, navigate to Your one-stop construction partner | Cordeel Group and visit the relevant company website.

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