

HOW WE CREATE VALUE

VALUES AND SOCIETAL CONTRIBUTION

Real estate development, dredging and marine engineering, construction, technical installations and rail & utilities. The group CFE is active in multiple domains whose common point is to have a major impact on society. The strength of the Group lies in its diversity and its complementarity to build from today, the world of tomorrow. The analysis of the 17 sustainable development goals established by the United Nations has made it possible to identify, both for DEME as well as for CFE Contracting and BPI Real Estate, their own prioritised objectives. Aware of its social responsibility, CFE is ready to take up the crucial challenges of climate change, circular economy, production and responsible consumption of green energy, mobility, safety and well-being of our employees and all the stakeholders on our projects or access to affordable housing. The Group has a clear desire to focus on these maximal sustainable impact both in the construction process and in the projects themselves. And CFE does not hesitate to innovate to create a maximum lasting impact.

This sustainable impact can thus be written down around five complementary ambitions, namely: "build for the future", "be a great place to work", "offer innovative solutions", "drive the energy transition towards climate neutrality" and "create sustainable shareholder value". These five pillars represent the whole of the ESG themes: Environment, Human (social), and Governance. In doing so, sustainability is at the heart of the strategy of the CFE Group. The continuous dialogue with all stakeholders and the development of solid partnerships support this sustainable approach and form the foundations necessary for the achievement of our ambitions.

EMPLOYEES
MATERIALS & SUPPLIERS
KNOWLEDGE & EXPERTISE
DIGITAL TECHNOLOGIES
EQUIPMENT & CAPITAL

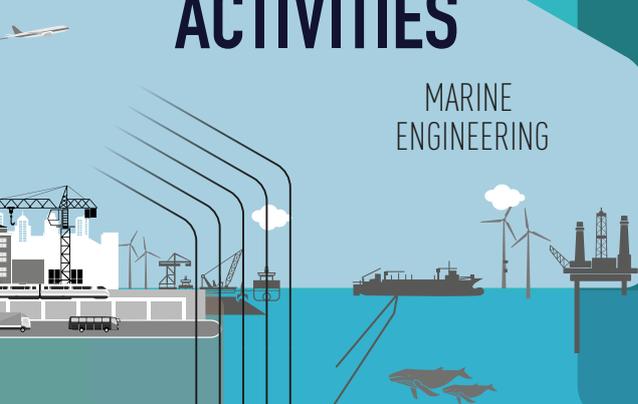
INPUT

CONTRACTING
URBAN SHAPERS

HOW WE
CREATE
VALUE

ACTIVITIES

MARINE
ENGINEERING



IMPACT

BUILD FOR THE FUTURE
BE A GREAT PLACE TO WORK
OFFER INNOVATIVE SOLUTIONS
TOWARDS CLIMATE NEUTRALITY
PARTNER FOR CHANGE

MATERIALITY & KPI'S



* these SDG's are DEME, CFE Contracting and BPI Real Estate related; more info in the annexes

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BUILD FOR THE FUTURE

Project ZIN - Brussels

THE FIGHT AGAINST GLOBAL WARMING IS A MAJOR CHALLENGE OF OUR TIME. THE CFE GROUP IS FULLY AWARE OF THE CURRENT CHALLENGES, AND FULLY ASSUMES ITS ROLE AS BUILDER OF A RESPONSIBLE FUTURE FOR ALL. WHETHER THROUGH THE DEVELOPMENT OF PIONEERING PROJECTS, THE USE OF SUSTAINABLE MATERIALS OR THE DESIGN OF ENVIRONMENTALLY-FRIENDLY BUILDINGS, EVERYTHING IS DONE TO BE PART OF A DYNAMIC FOR THE FUTURE. THE REDUCTION, RECYCLING AND REUSE OF WASTE, THE CONTROL OF ENERGY CONSUMPTION, WATER MANAGEMENT: THERE ARE SO MANY CONCRETE AREAS OF ACTION THAT SUPPORT THIS VERY LONG-TERM VISION.

Given that the nature of its activities is directly linked to renewable energies, DEME has integrated environmental, social and governance (ESG) criteria into all of its processes for several years now. CFE Contracting and BPI Real Estate have in turn embarked on a new proactive policy in this area from 2019. This took off in 2020, with the introduction of clear and relevant key performance indicators (KPIs). The year 2021 was marked by a global awareness within all entities, at all levels of responsibility, and by the appointment of several sustainability officers in the various structures of the group. Through regular meetings, the synergies and work groups have led to the emergence of many initiatives. Each business unit has been allowed a great deal of freedom of reflection, in order to stimulate the collective intelligence without upsetting the specificities of each business unit. The foundation for an even more coherent common line is already in place, and will allow the CFE Group to define even more ambitious objectives from 2022.

The first fruits of this vision are already clearly visible, as evidenced by the remarkable results obtained during the analysis exercise carried out by the Sustainability rating agency. With a score of 27.8 (Me-

dium Risk), the CFE Group is one of the best companies in its sector in the field of ESG risk management. This is not only about applying the principles of the circular economy in the operating processes of construction sites, but also about enlightened governance and resolute investment in innovative construction methods in terms of sustainability. CFE Contracting and BPI Real Estate have thereby combined their know-how to create Wood Shapers. After the iconic Wooden project in Luxembourg, Wood Shapers this time teamed up with BPC Group for the Monteco project, the tallest wooden building in the Brussels Region.

PRESERVING NATURAL ENVIRONMENTS

As a pioneer in the ESG approach, DEME is also improving the analysis of its energy data through the development of control panels for the greenhouse gas emissions and energy consumption for all its business units. Given the nature of the operations of the CFE Group's maritime hub, the protection of biodiversity and respect for marine balances are at the heart of its concerns. To guarantee those principles in a general and consistent manner, a QHSE (Quality, Health, Safety and Environment) risk management system is implemented at all sites

and in all operations. A KPI is linked to the system. According to its index, this initiates responses in the form of 'green initiatives', namely one or several modifications to processes, equipment or installations with the aim of reducing the environmental impact of the project, in particular by limiting any waste and unnecessary discharges. The KPIs raise the awareness of the involved team members in a very specific way. They are better able to identify the environmental impacts and to formulate creative ways to reduce these effects. A recent initiative was to replace the oil and grease used on the hydraulic and lubrication systems of the floating equipment with biodegradable alternatives.

ANTICIPATING THE FUTURE

Imagining the buildings and living spaces of the future is the credo of BPI Real Estate. Beyond the construction process, the concepts of living together linked to the types of buildings are today already determining the contours of our future. A long-term vision that anticipates the needs of tomorrow, with results today. In 2021, BPI Real Estate projects under design or execution represent 83.200 m² of 'fossil free' constructions, 50.360 m² of wooden constructions and 206.870 m² of 'eco friendly' constructions.



GRAND POSTE

A NEW LEASE OF LIFE FOR LIEGE

Developed by: BPI Real Estate and BPC Group

A vast project to enhance the listed heritage in the urban centre with the development of co-working spaces, start-ups, several business incubators, shops (covered market selling local products), hotels and restaurants, microbrewery, etc. to develop a digital and creative district in the former building of the Grand Poste, all in conjunction with the University of Liège.



With projects such as BrouckR in Brussels, a multifunctional realisation which for the residential part and offices is entirely heated and cooled by means of open geothermal energy, without any fossil energy, and which will accommodate housing, a hotel, offices and shops in the very centre of the Belgian capital, these are the foundations that have been laid for a new way of living in the city.

RECYCLE, IMAGINE, INNOVATE

BPC Group and Van Laere have paved the way for the use of recycled concrete on the

ZIN site in Brussels. This is an approach that is still experimental and will require standardisation in the years to come, but which promises real progress. The principle consists of reducing part of the materials resulting from the demolition in the form of aggregates, and then adding them to the new concrete. A virtuous cycle with an extremely positive impact on the reduction of CO₂ emissions at all levels. In general, the awareness of the need for recycling is now part of the DNA of the CFE Group.

The management of energy sources is at the heart of all reflections on the future of our planet. VMA has developed a tool that makes it possible to combine SMART and sustainability. It is called VMANAGER. This intelligent energy management solution for buildings marks a major technological advance. It interconnects independent systems from several suppliers and manufacturers, regardless of the technical field (lighting, heating, cooling, ventilation, fire detection, access control, geothermal energy, management of charging stations, etc.)

Combined with an optimisation of consumption based on guaranteed results, VMANAGER is a truly comprehensive energy management tool for buildings.



and gives an accurate view of the operation of the building, while providing the tools for its efficient maintenance. Combined with an optimisation of consumption based on guaranteed results, VMANAGER is a truly comprehensive energy management tool for buildings. Although intended for buildings under construction or renovation, the intelligence of VMANAGER is now also used internally on the construction sites, with very tangible successes. The 24/24 monitoring makes it possible to optimise the electrical consumption of site installations and has also made it possible, for example, to identify a water leak on sanitary equipment on a site in the middle of the weekend and to stop it, thereby saving some 12,000 litres of water in a day.

Mobility, which is central to the resolution of environmental issues, is not left behind. This is demonstrated by the participation of MOBIX in the LuWa consortium, which is modernising the lighting equipment of the Walloon road network and laying the foundations for the first connected motorways.

The construction site of the Oosterweel link in Antwerp, thanks to which the major port city will have a complete ring road and the necessary bypass to absorb international traffic, is another example of this. DEME and Van Laere are partners in this, demonstrating once again how the Group's entities complement each other and their ability to provide real solutions for the future.

ZIN LARGE-SCALE CIRCULARITY

Developed by: BPC Group, Van Laere and VMA

An innovative multifunctional project redeveloping the existing WTC 1 and 2 towers in the northern district of Brussels. The 110,000 m² area above ground will include 75,000 m² of office and coworking space, 14,000 m² of housing, and 16,000 m² of hotel space as well as sports, leisure, hospitality and retail space. Van Laere and BPC Group are responsible for the construction and VMA for the multi-technical aspects.

ZIN is a bold project both in terms of its architecture and its design or its impact on the environment. It will indeed be energy-neutral. An important place was also given to circularity. 65% of the existing towers are preserved and 95% of the materials will be kept, reused or recycled, while 95% of the new office materials will have to be C2C (cradle to cradle) certified.





BE A GREAT PLACE TO WORK

PROVIDING A SAFE AND FULFILLING WORK ENVIRONMENT. ENABLING EVERYONE TO DEVELOP THEIR TALENTS, AND TO PROGRESS IN THEIR CAREERS. PROVIDING ADEQUATE TRAINING OPPORTUNITIES FOR ALL, WITHIN A CARING ENVIRONMENT. THESE VALUES ARE ESSENTIAL FOR THE CFE GROUP, WHICH HIGHLIGHTS THE COLLEGIALLY OF ITS TEAMS THROUGH THE CONCEPT OF 'TOGETHERNESS'. WELL-BEING AT WORK, HEALTH AND SAFETY ARE, OF COURSE, FUNDAMENTAL, IN PARTICULAR IN THE CONTEXT OF THE HEALTH CRISIS THAT HAS STRONGLY MARKED THE PAST YEAR, BUT THE CFE GROUP GOES FURTHER IN ITS DESIRE FOR INCLUSION AND EMPOWERMENT WITHIN ALL ITS ENTITIES.

Safety is both a right and a duty at all times and on all construction sites of the CFE Group. Ensuring a safe work environment for employees is absolutely fundamental at all levels and in all entities, regardless of their activity. In this context, Benelmat has completely revised the risk analyses of jobs and tasks, with a new framework and quantified evaluations. A 5-year global prevention plan and an annual action plan with concrete objectives have been launched, as well as a specific health and safety plan integrating the different possible interventions on site and the specific risks or situations. The synergy with BPC Group in

terms of the Quality-Safety-Environment standards has been further strengthened and improved.

VMA has extended the actions of its 'VMA VCA' project, through which all the health and safety advisers joined forces in order to implement a VCA system in all VMA units by the beginning of 2022, coupled with a safety strategy adapted to each sector of the entity. MBG, which has confirmed its ISO-9001, VCA and VCA-P certifications, has also stepped up its awareness-raising policy by including a welcome video covering safety on all sites, following which people wish-



ing to access the site must answer a series of questions before access is authorised. At MOBIX, all the board members and managers have attended a Safety Awareness training programme, and the functionality of the safety app has been extended to include site inspections and the reporting of incidents and accidents at work.

SAFETY AND WELL-BEING, WITHOUT RESPITE

The complete revision of the Safety Awareness training programme in 2021, which is now tailored to reflect the seniority and position of each participant, has been enhanced by a series of concrete action plans aimed at reducing the number of incidents in the very short term. Specific attention is paid to working at height, as well as to the Life Saving Rules common to all the entities of CFE Contracting.

In order to measure and improve the well-being, as well as the motivation and performance of its teams, MBG and VMA have jointly introduced a site barometer on the Tweewaters project in Leuven. On this table, which shows a series of points related to the work on the site, employees can indicate how they feel about each subject, using a colour code: green, orange or red. The possibility for everyone to express themselves, and the decision to put people at the centre of considerations, have led to concrete improvements in the working conditions, for the benefit of all.

As pioneers in many fields, the DEME teams are often required to work under complex conditions or environments. Safety and well-being are equally essential on vessels, on construction sites and in offices. In addition to constant monitoring through

MAJALAND

Developed by: CFE Polska

The second theme park dedicated to Maya the Bee, carried out by CFE Polska, after that of Kownaty east of Poznań, Majaland in Warsaw will be one of the largest amusement parks of its kind in the metropolitan region. A plot of 50,000 m² of land for a built area of almost 10,000 m², including, among other things, all reception areas for the many attractions and a parking lot with more than 700 places. The project is also strongly linked to the social fabric and to local communities, including the sponsorship of a kindergarten, a donation of € 20,000 to the municipality of Wiazowna to support the renovation of its school and a partnership with the Embassy of Belgium to set up of beehives to promote honey production.

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strict KPIs, DEME developed several actions in 2021, in particular the Safety Stand Down and the Safety Moment Day, during which 214 success stories in the area of safety were shared. The 'Resilience and well-being at DEME' prevention programme was the main tool that allowed the teams to continue to work and to maintain the projects in complete safety, despite the pandemic.

LONG-TERM TRAINING

The focus within several entities of the CFE Group was placed in particular on skill development in 2021. This was especially the case at Van Laere through the implementation of the Van Laere Academy, which provides a wide range of global training modules that are accessible to everyone, supplemented by more specific training programmes aimed at specialised technical activities. The latter programmes also call upon the support of the most experienced staff members, who pass on their know-how and knowledge in this way. The approach is largely the same at MBG, through the 'mentor' training projects, and at MOBIX, where project managers can take advantage of projects adapted to their position over a period of nine months. CFE also launched its "Traineeship for Young Project Leaders"

programme in 2021. This is a comprehensive training programme covering not only project management and construction site planning, but also sustainability and finance, with all this incorporated in interactive modules led by experts and complemented by field visits.

ATTRACTING TALENT

At Group level, the foundations of the future CFE Academy, which will be launched in 2022, have been laid. It will support the career development of all employees and will also make it possible to attract outside talent even better. The recruitment of new qualified employees remains one of the major challenges of the CFE Group, like all players in the construction world. The digitalisation of many human resources departments also improves everyone's working comfort and strengthens the team spirit present in all entities. A community with strong ties which expressed its values of solidarity at all levels, both in Poland with the social actions around the **Majaland** project or in Belgium with the aid for victims of the floods of 2021. A collection in favour of **the Cross -Rouge** thus made it possible to collect nearly 15,000 euros, an amount doubled by CFE which made it possible to pay the NGO no less than 30,000 euros.



RED CROSS CFE SOLIDARITY

After the terrible floods in eastern Belgium in 2021, funds were raised among employees to make a donation to the Red Cross. CFE then doubled the amount collected - € 14,890 - paying a total of € 30,000 to the NGO helping the victims. Not to mention the many volunteer colleagues who came to help in the field in their spare time.



TOWARDS CLIMATE NEUTRALITY

Hornsea Two

TWO YEARS AGO, CFE CONTRACTING AND BPI REAL ESTATE INITIATED A NEW SUSTAINABILITY POLICY BASED ON THE 17 SUSTAINABLE DEVELOPMENT GOALS OF THE UNITED NATIONS, FOLLOWING THE LONG-STANDING WORK CARRIED OUT BY DEME. CARBON NEUTRALITY IS ONE OF THE MAJOR POINTS OF THIS STRATEGY. AFTER THE ANALYSIS AND ESTABLISHMENT OF THE RELEVANT KPIS, 2021 WAS THE YEAR OF IMPLEMENTATION, WITH ACTION PLANS INITIATED IN ALL THE ENTITIES, AS WELL AS A CLEAR AMBITION TO REDUCE DIRECT CARBON EMISSIONS BY 40% BY 2030. THE COMMITMENT OF THE CFE GROUP IS REFLECTED IN THE DESIRE TO DO EVERYTHING POSSIBLE TO REDUCE THE IMPACTS FROM THE EARLY DESIGN STAGE OF THE PROJECTS.

Within the CFE Group, DEME is both a pioneer and a driving force in the field of carbon neutrality. The impact of its off-shore wind activities is huge, both locally and at the international level. The beginnings of the Coastal Virginia Offshore Wind (CVOW) project – with a capacity of 2.6 gigawatt, making it the largest off-shore wind farm ever carried out in the United States – demonstrates the validity of DEME's commitment of more than 15 years to this type of renewable energy. Other projects include, among other things, the laying of 40 of the 80 foundations of the wind farm in **Saint-Nazaire** in France, the installation of the last of the 165 monopile foundations of **Hornsea Two** off the British coast, which will be the largest off-shore wind farm in the world, the laying of the foundations for the Parkwind Arcadis Ost1 project in Germany, etc.

DEME also aims to reduce its GHG emissions by 40% (compared to 2008) by 2040 through the adoption of new technologies, and to become “climate neutral” in its operations by 2050, contributing to carbon neutrality. This primarily concerns the improvement of the ships of the Fleet of the Future, whose greenhouse gas emissions are constantly being reduced, but

also the establishment of a zero emissions network – the Emission Free Infrastructure Network – which will accelerate the energy transition of the infrastructure sector. With its participation in the two HYPORIT projects for the production of green hydrogen in the Sultanate of Oman and in Ostend, within the framework of the European Clean Hydrogen Alliance, DEME further confirms its desire to contribute to the objective of carbon neutrality set for 2050 by the European Council. The Belgian site alone will enable a CO₂ reduction of nearly 500,000 to 1,000,000 tonnes per year.

Achieving carbon neutrality is a goal that calls for humility. The various members of the Sustainability Board – which brings together the sustainability officers of the various units of CFE Contracting and BPI Real Estate – have understood this, and place the emphasis first and foremost on raising awareness of environmental issues and on practical and concrete approaches. This awareness is now a fact throughout the CFE Group, and is driving a whole series of initiatives aimed, in particular, at reducing emissions of CO₂. The various entities have been allowed a great deal of freedom with regard to the application

methods for these initiatives, in order to anchor the principles of sustainability to the specificities of each trade. Next step for the year 2022: an even more concerted and unified policy, for which the foundations are now firmly laid, and clear objectives for all. The mobility of personnel, the transport of materials and the optimisation of energy consumption on construction sites and in the development of projects are all levers to be activated.

BETTER FORECASTING FOR BETTER REDUCTION

In 2021, MBG began the certification process aiming to reach Level 3 on the performance scale for CO₂, which has already been achieved by Van Laere. This ambition is based on a switch to green energy, which now represents 95% of the energy mix of construction sites, as well as on an intelligent monitoring of consumption. The collaboration with Benelmat has also played a major role, with a focus on the environmental impact of the equipment used and the choice of more energy-efficient equipment to reduce the carbon emissions. Waste-water recovery projects, the installation of photovoltaic panels and even more efficient ventilation are underway, and will see the light of day during the year.



On certain crucial aspects of the overall environmental report of Belux, the specific technical skills of the CFE Group have made it possible to make a significant difference.

In the case of BPC Group, monitoring consumption on site was also the cornerstone in reducing emissions. A network of sensors and alarms, installed, among other places, in offices, workers' premises and on cranes, makes it possible to analyse consumption in order to improve energy performance on the one hand, and to immediately alert the teams in the event of an incident, for example a water leak, on the other. The Construction Consolidation Centre (CCC) pilot project – a logistics system where delivery flows are regulated according to the needs of the site – inspired by the one used by CLE on the Aurea site, has contributed to greatly reducing the environmental impacts linked to deliveries and to the routing of materials, while simplifying storage as a whole.

The CCC is used in particular on ZIN, another exemplary site on which BPC Group, Van Laere and VMA jointly demonstrate the merits of circular construction. Designed to be almost energy neutral, the redevelopment project of the WTC 1 and 2 towers in Brussels is carried out by retaining, reusing or recycling 95% of the weight of the pre-existing buildings. The new materials used are 95% Cradle to Cradle (C2C) certified. An approach that dramatically reduces the carbon footprint of the works, as well as that of the final buildings over their entire lifespan.

LOCAL ACTIONS FOR THE FUTURE

On certain crucial aspects of the overall environmental report of Belux, the specific technical skills of the CFE Group have

HORNSEA TWO RENEWABLE ENERGY ON THE MOVE

Developed by: DEME

The 'Innovation', a vessel of DEME's fleet, is involved in the construction of what will soon be the world's largest wind farm. Off the coast of Yorkshire, Hornsea Two will surpass its predecessor Hornsea One by producing 1.4 GW of clean energy by 2022. No less than 165 monopile foundations and transition pieces were installed to accommodate the turbines with 82-metre blades that will each generate 8.4 MW. A further step towards the conversion to renewable energy, where DEME once again demonstrates its long-term vision and pioneering role.

made it possible to make a significant difference. One example among many others is Procool, a specialist in industrial refrigeration and air conditioning within the VMA multi-technical cluster, which replaces old harmful cooling gases with sustainable gases such as ammonia and carbon dioxide. As a pioneer in this field, Procool is not only happy to offer these solutions to its customers – including many players in food distribution – but also participates in the training of technicians in partnership with the schools.

BPI Real Estate believes that climate ambition begins at the source, from the design of projects, by systematically taking into account the ecological impact of each construction, and by integrating a focus on possible sustainable solutions at each stage



GRAVITY

THE FUTURE OF LIVING TOGETHER

Developed by: BPI Real Estate and CLE

The Gravity project, located at the entrance to Differdange, embodies all the values of long-term vision held by BPI Real Estate. From the design stage, integrating the specific needs of the urban environment and the impact of living together have made it possible to design a complex of 80 housing units associated with 125 co-living studios, all on a 3,500 m² commercial base comprising offices and services. A global concept that modernises the way of life in the third largest city of the Grand Duchy of Luxembourg.

of the development. This approach has given rise to projects that partially or totally dispense with fossil fuels, being based on geothermal energy – such as BrouckR and Serenity in Brussels – or on biomass and pellets, such as **Gravity** in Luxembourg. One of the strengths of the CFE Group, specific to real estate development, is this ability to position itself over the long term and to take global issues into account.



SAINT-NAZAIRE

WIND POWER, THE ATLANTIC FORCE

Developed by: DEME

With 80 wind turbines supplying 20% of the Loire-Atlantique department's electricity consumption, the Saint-Nazaire offshore wind farm is a major step forward for France in the field of renewable energy. In 2021, DEME transported and installed the first electrical substation, a 1,200-tonne construction capable of collecting the electricity produced and sending it to the mainland via two underground cables.

Whether through reuse – 35,580 tonnes of materials reused over the last 12 months – through the integration of mobility elements, through the choice of upgrading – 60,160 m² to be renovated or under renovation during the past year – or by the use of sustainable technologies – resulting in 206,870 m² of 'CO₂ friendly' buildings in 2021 – BPI Real Estate is paving the way for our carbon-free future.



OFFER INNOVATIVE SOLUTIONS

INNOVATING IN ORDER TO MOVE FORWARD, TO PROGRESS, TO RESPOND EVEN BETTER TO THE NEEDS OF A WORLD THAT IS CONSTANTLY EVOLVING, BUT ALSO INNOVATING AS A CONTRIBUTION TO LIVING TOGETHER IN A SUSTAINABLE MANNER. BY ADOPTING NEW PROCESSES ON ITS CONSTRUCTION SITES, IMAGINING THE HOUSING OPTIONS OF THE FUTURE, AND DEVELOPING TECHNOLOGICAL SOLUTIONS TO ENVIRONMENTAL CHALLENGES, THE CFE GROUP IS ASSERTING ITS DESIRE TO BE A CONSCIOUS AND RESPONSIBLE PROTAGONIST IN THE CONSTRUCTION OF OUR FUTURE TOGETHER. THIS ALSO REQUIRES A REASONED GOVERNANCE AND INCREASED DIGITALISATION OF OPERATING METHODS.

DEME's commitment to new technologies that enable the construction of a more sustainable future is expressed in a very concrete manner in various sectors. Global Sea Mineral Resources (GSR) – the DEME division dedicated to the exploration of the seabed – is continuing its research into the collection of metal-rich nodules found on the ocean floor. Under the supervision of a panel of independent scientists, the Patania II prototype module was deployed at a depth of 4,500 metres in order to verify the possible ecological impacts, while at the same time perfecting this method of collecting essential and rare metals. A big step forward for the future.

DEME actively contributes to the development of green hydrogen, within the European Clean Hydrogen Alliance, and is involved in the construction of two

green hydrogen production plants through partnerships entered into with the Port of Ostend and PMV for HYPOR[®] Ostend on the one hand, and with OQ Alternative Energy for HYPOR[®] Duqm Green Energy in the Sultanate of Oman on the other. Produced from renewable energy sources, 'green' hydrogen is an innovation with a significant long-term potential in the context of the energy transition. It can, in fact, be used as an energy source for electricity, mobility, heat and combustion, or as a raw material for the assurance of industrial conversion.

DEME continues to rely on innovation and on alternative fuels such as LNG and biodiesel, or even green hydrogen and methanol, in order to make progress towards its goal of reducing its greenhouse gas emissions. It is also improving the



Serenity Brussels



RENT-A-PORT GREEN ENERGY ELECTRICAL STORAGE: A STEP AHEAD

Developed by: Rent-A-Port Green Energy

The development of large electricity storage capacities is one of the keys to a successful energy transition. On the one hand, it ensures a sustainable, secure and CO₂-neutral supply, especially during periods without wind and sun, and on the other hand, enhances the stability of the grid, especially when renewable energy is abundant.

The ESTOR-LUX consortium, of which Rent-A-Port Green Energy is a member, has started full operation of the first battery storage park connected to the Belgian high-voltage grid. Located in Bastogne, the 480 lithium-ion modules have an installed capacity of 20 MWh and a storage capacity of 10 MW. It is also one of the first battery parks in Europe to offer a long duration of electrical restitution (around 120 minutes, i.e. 2 to 4 times more than existing systems). A decisive advantage for keeping the network stable.

energy efficiency of its entire fleet thanks to technological advances, using waste gas heat recovery systems for electrical energy and by implementing tools for tracking and monitoring energy data.

COLLECTIVE INTELLIGENCE

The sharing of best practices and technological solutions between the various entities of the CFE Group plays an important role in the concrete implementation of innovations in the field. Meetings focusing on sustainable development issues have enabled BPC Group and Benelmat to optimise the electrical equipment on construction sites, using batteries capable of absorbing consumption peaks and enabling a reduction in power – and therefore the carbon footprint – of conventional generators. The cooperation between Benelmat, VMA, BPC Group and MBG for the installation of smart meters and for the continuous, accurate and remote monitoring of energy consumption is another interesting example.

The development of Building Information Modelling (BIM) is now a priority at the construction sites. This method of digital modelling of construction information profoundly changes the work of the teams, both upstream and during field operations, and clarifies all the processes from property development to final completion, while reducing the risk of errors at every stage. The Arlon-Trèves project in Brussels, an ambitious renovation project covering 18,000 m² of buildings that were earmarked for demolition but have been transformed into offices, provides a perfect illustration of this.

In general, digitalisation is becoming the rule for a growing number of administrative formalities, including the electronic signature in 2021. The development of IT tools has made it possible to reduce or even virtually eliminate paper archives. This 'paperless' operation is beneficial from an environmental point of view, and has now



SPARTACUS

AN ECOLOGICAL GIANT OF THE SEAS

Developed by: DEME

DEME's new ship, the 'Spartacus', inaugurated in May 2021, is a true miracle of innovation and sustainability. This 164-metre-long cutter suction dredger has a total capacity of 44,180 kW and can dredge to a depth of 45 metres. It is also the first in the world to run on liquefied natural gas. Its two auxiliary engines have biofuel technology. The 'Spartacus' has a waste heat recovery system that converts the heat from the engine exhaust into electrical energy. A revolutionary and environmentally friendly design that makes it the new benchmark for the global dredging market.

been adopted by BPC Group, among other entities. In all entities, the simplification and digitisation of documents, reports and technical data sheets are laying the foundations for the interconnected construction of the future, with a focus on improved rationalisation and greater efficiency.

ENTERING THE WORLD OF TOMORROW

At the same time, BPI is strengthening its skills in the area of smart buildings. The PURE project in Auderghem offers apartments connected to the Internet of Things (IoT), whereby several aspects can be managed remotely. This type of housing antici-

pates our daily life in the future, as does the choice to increasingly invest in geothermal energy, a sustainable and efficient technological solution that increases user comfort while limiting carbon emissions. In Brussels, Serenity, an exemplary mixed housing-office project, which can be dismantled at the end of its life, will be heated and cooled using geothermal energy and cogeneration, with no fossil fuels for the office part. In view of its location on a metro station, it will also offer Smart Office and Smart Parking systems. The innovation in the CFE group is largely supported by the principles of sustainability, as illustrated by the **Rent-A-Port** project

for electrical storage - and of circular economy. Wooden, the most recent achievement of Wood Shapers, the Group entity that is entirely dedicated to timber construction, is proof of this. Another example is the site of the Aurea tower in Luxembourg, which is managed by CLE. The innovative Hydro Circal 75R system used for the composition of the aluminium of the exterior body has, in fact, enabled a reduction of the carbon footprint by a factor of eight. A third interesting example is the ZIN project in Brussels, an ambitious redevelopment of the WTC 1 & 2 buildings.



ETCS2

PARTNER FOR CHANGE

THE CFE GROUP SYSTEMATICALLY SEEKS TO PUT ITSELF AT THE SERVICE OF THE COMMUNITY, AND TO USE THE KNOW-HOW AND THE SKILLS OF ITS TEAMS TO FURTHER IMPROVE OUR LIVING TOGETHER. THE STRENGTHENING OF SOCIAL LINKS, THE CONSIDERATION OF ENVIRONMENTAL ISSUES AND THE INTEGRATION OF NEW TECHNOLOGIES ARE ALL ELEMENTS PRESENT IN EACH PROJECT, WITH THE GOAL OF TRANSFORMING OUR LIVING ENVIRONMENT IN A POSITIVE MANNER. THE INFRASTRUCTURES CREATED BY THE DIFFERENT ENTITIES LITERALLY SHAPE OUR DAILY LIVES. THE CFE GROUP IS POSITIONING ITSELF AS A PARTNER OF CHANGE, IN BOTH THE SHORT AND THE LONG TERM.

The positive impact of the CFE Group on our society is particularly visible through the contribution of DEME to infrastructure projects such as the Oosterweel Link in Antwerp. The latter will provide this major port city with a ring road link that will improve traffic flow, as well as the quality of life of all the residents of the region. Continuing in the same spirit, the start of the works on the Fehmarnbelt Fixed Link, the world's longest immersed tunnel linking Denmark and Germany, to which DEME is contributing all its technical expertise, marks the start of a new era of mobility in northern Europe.

It is equally relevant to underline the importance of the multiple cooperations and synergies between the entities, which

foreshadows the consolidation of the CFE Group – bringing together contracting and real estate development – separate from DEME. A change that will become effective in 2022. The close exchanges of know-how and joint projects between MBG, BPC Group, VMA and, of course, Benelmat, with regard, among others, to the reduction targets for CO₂, is the best evidence of this.

INTERNAL AND EXTERNAL LINKS

In the same spirit of cooperation and taking advantage of technical advances, CFE Contracting and BPI Real Estate have pooled their know-how to create Wood Shapers. This entity, which is entirely dedicated to timber and modular construction, perfectly embodies the Group's thinking on the

mastery of materials and the optimisation of construction methods. The sustainable approach of Wood Shapers and its integrated vision of construction sites have already been applied on numerous construction sites in Belgium and Luxembourg. The highlight in 2021 will be the **Monteco** project, which, with its eight floors, will be the highest wooden office building in the Brussels-Capital region.

Following a survey among 80 suppliers, MBG was able to analyse the overwhelmingly positive responses and expectations of its partners, and could identify areas for improvement to make these relationships even more sustainable. The measures adopted made it possible to refine certain processes, strengthen the bonds of trust, and improve



ENVES – ETCS2 BELGIUM ON TRACK

Developed by: **MOBIX**

By 2025, the lines of the Belgian conventional rail network will be equipped with level two of the European Train Control System (ETCS). MOBIX is intensively involved in this large-scale project initiated by the network manager INFRABEL, with the task of upgrading 2,000 kilometres of track to ETCS 2 and switching on 1,500 kilometres. With this new system, signalling data is continuously transmitted via the GSM-R or GPRS network. This is a major step forward in safety, which will also make traffic flow more smoothly and improve the public transport offer.



VMANAGER ENERGY UNDER CONTROL

VMANAGER is a next-generation integrated solution developed by VMA that interconnects independent systems from various suppliers and manufacturers, regardless of the technical field. It allows you to centrally manage lighting, heating, cooling, ventilation, fire detection, access control, geothermal energy, recharging stations, etc. The use of data from all the technical installations gives a precise view of how the building is functioning and makes it possible to map and improve energy consumption based on guaranteed results. The associated tools also make maintenance easier and more efficient. This monitoring, which is based on cutting-edge technological solutions, is an essential tool for the energy performance and sustainability of buildings, but also for their comfort and habitability.

operations at several levels. A testimony of the need to fully integrate partnerships into the global vision of the CFE Group, and to make them true ecosystems based on interaction and mutual respect.

AN AWARENESS OF GLOBAL ISSUES

As a member of the HYVE consortium, which is led by the Institute for Microelectronics and Components (Imec) and by the Flemish Institute for Technological Research (VITO), DEME is actively participating in the emergence of real solutions for the production of green hydrogen through electrolysis, in gigawatt volumes. The HYPORT concept will be one of the levers in this perspective, permitting the import of inexpensive green hydrogen to complement what European production can provide. A clear marker on the road to decarbonisation.

CFE has also extended its own partnership with VITO with regard to **VMANAGER**, and supports this independent research

organisation, which has set itself the goal of making sustainability the standard in our company by developing global projects that facilitate the ecological transition through technological innovations. An approach that provides concrete answers, but also emphasises the sharing of knowledge and synergies between the private sector and the world of research.

As a symbol of its desire to actively participate in building a sustainable future, the CFE Group has a commitment with the Belgian Alliance for Climate Action. This NGO, founded jointly by The Shift and WWF Belgium, brings together private sector companies, non-profit organisations and academic institutions around a series of joint sustainability objectives. Through the sharing of knowledge, networking and workshops, the Belgian Alliance for Climate Action enables its members to interact and strengthen their actions for the benefit of the climate, based on rational, scientific elements.



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CONCRETE SOCIAL COMMITMENTS

The CFE Group is socially involved in several fields in order to support local communities. Pending the demolition of the Key West site in Brussels, the buildings were thus made available to the non-profit organisation Biesterbroeck, which was able to set up the co-creation and co-working project “Hangar du Kanaal”. BPI Real Estate has also provided financial support for the Pool is Cool initiative, which aims to reintroduce public outdoor swimming in Brussels. The employees of the CFE Group are not left

out and are also involved in solidarity actions. Two telling examples with Operation Shoebox – food donations packed in decorated boxes organised by the association Les Samaritans, in which several colleagues took part – and with the aid for flood victims set up by an employee of BPI Real Estate supported by Benelmat for the logistics part. This last operation made it possible to collect numerous donations of furniture, household appliances, mattresses, childcare equipment, etc. for people affected by the floods of the summer of 2021.

MONTECO

A WOODEN CONSTRUCTION IN THE CAPITAL

Developed by: Wood Shapers and BPC Group

The largest wooden building in the Brussels-Capital Region to date, the Monteco project is a perfect example of the innovative technology used by Wood Shapers. 3,674 m² of office space over eight floors, including a large terrace, in the heart of the European district. With the exception of the prefabricated concrete core, the entire structure is built of exposed wood. All the wood used is not only PEFC certified but also comes from suppliers located within a 500 km radius of the site. An example of innovation and technology.