

Participation in CO₂-emission reduction programmes and (sector/value chain) initiatives



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Date: 01/04/2022

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Revision	Date	Description
0	22/02/2022	First version
1	01/04/2022	Review related to name change of Van den Berg and Agidens Infra Automation into BESIX Unitec
2		

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1. Introduction

BESIX is a multi-disciplinary construction company specialized in construction, infrastructure and marine works, often in contracts with a high level of complexity. In Benelux and France, the Group's regional affiliates BESIX Infra, Jacques Delens, Vanhout, Wust and Lux TP ensure a strong presence and a local approach. With Franki Foundations, Socogetra, BESIX Environment and BESIX Unitec, the Group offers specialist niche solutions for the building market like deep foundations, geo-engineering, road construction, water treatment and cable and pipeline construction.

As an active member of the United Nations Global Compact since 2016, BESIX Group supports the 10 United Nations principles relating to the respect of Human Rights, international labour standards, the environment and the fight against corruption. BESIX Group is also an active member of The Shift. The Shift helps BESIX Group to make use of the global framework of the UN Sustainable Development Goals to map its societal ambitions.



In 2016, BESIX Group signed the Belgian SDG Charter for Development with the objective to promote the Sustainable Development Goals (SDGs), to implement them in the framework of development cooperation and to raise awareness of the international development agenda in the Belgian private sector.

The Belgian SDG Charter for Development is based on the 5 Ps of the SDGs: People, Planet, Profit, Peace and Partnerships. The Shift, the Belgian sustainable development network, guides the whole process. BESIX is one of the signatories of the Charter.

BESIX, as part of BESIX Group, supports the Sustainable Development Goals (SDGs), with a particular focus on SDG 13 related to climate change. Our group indeed recognizes the urgency of the climate challenge and addresses it as one of the main challenges of the construction sector.



Since 2011, the activities of BESIX in the Netherlands are certified level 5 in accordance with the latest version of the CO₂ performance ladder. BESIX aims to extend the current boundary of this certification to her BU Europe by no later than mid-2022.

The purpose of this document is to give a clear overview of the public CO₂-emission reduction programmes to which BESIX Group commits (requirement 5.C.1) and the (sector and/or value chain) initiatives in which BESIX Group participates (requirement 3.D.1).

2. Government or NGO CO₂-emission reduction program commitment (5.C.1)

2.1. Belgian Alliance for Climate Action – SBTi (BESIX Group)

BESIX Group is since October 2020 a signatory of the Belgian Alliance for Climate Action, launched by the non-governmental organizations **The Shift** and **WWF Belgium**. The Belgian Alliance for Climate Action (BACA) is a national initiative that invites the private sector and academic institutions to take the lead on climate action and to align their activities with the objective of the Paris Agreement, i.e. to limit the rise in global temperature to a maximum of 1,5°C.



Signatories of the Alliance express their intention to commit themselves to the Science Based Targets (SBTi) initiative and to develop and submit greenhouse gas science-based reduction targets. More information on SBTi can be found on www.sciencebasedtargets.org.

Through debates, workshops and webinars BACA aims to increase knowledge about Science Based Targets amongst the members in order to build their business case for the adoption of science-based targets, define specific targets and develop a roadmap for their implementation.

Through the Belgian Alliance for Climate Action and The Shift, BESIX has introduced to SBTi a request to develop a more sophisticated, nuanced pathway for setting targets within the construction industry.

More information can be found on www.belgianallianceforclimateaction.org

2.2. Concrete Agreement Netherlands – Betonakkoord Nederland (BESIX)

In 2016, the at that time Ministry of Infrastructure & Environment and MVO Nederland (= a network of innovating companies with the aim to create a futureproof economy) took the initiative to use the Concrete Agreement to flesh out the earlier plans of the Green Deal 'Sustainable Concrete', which was concluded in early 2016. The objective of the Green Deal was to define a widely supported and independent definition of 'sustainable concrete'.



The Concrete Agreement wants to take this further and wants to make it more tangible to the value chain partners. In July 2018 at the moment of the launch of the Concrete Agreement, Rijkswaterstaat has taken over the role of facilitator from the MVO Netwerk Beton.

The "Concrete Agreement" is committed to increase the sustainability of concrete within the sector and value chain. The agreement focuses on four themes: CO₂ reduction, circular economy, innovation & education and natural capital. Within these four themes, the signatories to the agreement aims to improve competitiveness, increase employment, increase exports without making concessions to the quality, safety and life span of concrete.

The "Concrete Agreement" gives substance to the objectives and ambitions for the concrete related value chain. Here are a few examples: 30% CO₂ reduction by 2030 compared to 1990 with an ambition of 49% reduction in the value chain, 100% high-quality reuse of waste concrete by 2030 and, with immediate effect, replacing at least 5% of the total volume of aggregates with concrete residual flows.

BESIX is since 2020 a signatory of the Concrete Agreement. See www.betonakkoord.nl/ondertekenaars.

More information can be found on www.betonakkoord.nl

2.3. Ministry I&W - Roadmap to climate neutral and circular infra projects (BESIX)

The Ministry I&W together with Rijkswaterstaat and Prorail join forces for the realization of the program 'Climate neutral and circular infra projects' in accordance with the ambition of I&W to be climate neutral and work circular by no later than 2030. The program focuses on the areas with the highest climate impact such as road surfacing, civil structures, shoreline & channel maintenance, construction site & logistics, railway superstructure & energy supply.

In order to realize this ambition, a number of transition paths have been defined. BESIX participates in the following transition paths.

-) Transition path 'Weg-, Dijk en Spoormaterieel' (former Construction site & logistics). See also [GWW emissieloze bouwplaats.pdf \(duurzame-infra.nl\)](#)
-) Transition path 'Wegverharding'
-) Transition path 'Kunstwerken'

More information can be found on www.duurzame-infra.nl

3. Active participation in sector and/or value chain initiatives (3.D.1)

The companies belonging to the Organizational Boundary participate both actively in a wide number of (sector or value chain) initiatives.

3.1. CO₂-Projectplan (BESIX, BESIX Infra, BESIX Unitec, Franki Foundations)

The CO₂ Projectplan initiative, originally launched by CFE Nederland and Geka Bouw in 2015, is a sector initiative that since 2017 is led by BESIX, TBI Infra BV and Van Gelder Group BV gathering various large Dutch construction companies (for a full list of participating companies - see <https://www.co2projectplan.nl/ledenlijst/bedrijven>). The initiative is supported by knowledge institute KWA Bedrijfsadviseurs.



The initial purpose of this development project was to facilitate a simple and unambiguous measurement and reporting of the most material scope 1, 2 and 3 emissions. During the development project, a project CO₂ monitoring and reporting tool was developed, first in Excel which has been digitalized during a second phase into the application 'Smarttrackers'.

The CO₂ project plan is used mainly on CO₂ awarded projects to define and analyze the expected project carbon emissions (including scope 3) and to take measures to reduce these carbon emissions by, for example, application of saving energy measures, use of sustainable energy, design optimization, use of more sustainable materials and optimization of execution and transport methodologies.

Experiences by the members of the initiative are shared during active quarterly meetings and form a basis for dialogue on sustainability. By publicly sharing experiences and inspiring each other, the members of the initiative strive for a joint carbon reduction within the construction sector and its supply chain in line with the Dutch National target of 49% CO₂ reduction by 2030 compared to 1990.

Each member commits itself to publish (at least twice a year) their projects with a CO₂ awarded advantage on the CO₂-Projectplan website mentioning project reduction objectives, foreseen and implemented reduction measures and obtained carbon reduction results.

BESIX monitors all Dutch projects with a CO₂ related advantage with this tool and has the objective, as from 2022, to also include BESIX Group's Belgian projects with a CO₂-related award advantage in this initiative.

More information can be found on www.CO2projectplan.nl

3.2. ADEB-VBA (BESIX, BESIX Infra, Franki Foundations)

ADEB-VBA is the branch organization of the large construction companies in Belgium and is part of the Belgian Construction Federation. As a member, BESIX, BESIX Infra and Franki Foundations participates in the Green Board and a number of sustainability related workgroups:



-) Workgroup 'Energy reduction & monitoring' (passive participation)
-) Workgroup 'Sustainable KPI's' (active participation)
-) Workgroup 'Circular economy' (active participation)
-) Workgroup 'New materials / equipment' (passive participation)
-) Workgroup 'CO₂ reduction' with the purpose to reduce carbon emissions within the supply chain (BESIX is Chairman of this workgroup)

These workgroups have as purpose not only to exchange knowledge and experiences amongst the members but also to define common environmental and/or sustainability standards to drive the Belgian construction sector to a higher level.

In 2021, together with CFE and Denys, BESIX played an active role in defining the sustainability strategy of ADEB-VBA.

More information can be found on www.adeb-vba.be

3.3. Green Deal on Circular Construction (BESIX, Vanhout, BuildUp)

The Green Deal on Circular Construction was launched in the spring of 2019 by Circular Flanders and OVAM (Public Waste Agency of Flanders). BESIX is one of the 320 signatories.



The participants experiments on new tools, methodologies and new ways of value chain cooperation and bring their accumulated knowledge and experience together in a learning network.

In addition, a research group has been initiated to develop in a concerted effort the so-called preconditions to a circular economy, i.e. the legal, economic and other barriers to be faced and tackled along the way. Data and experiences from the experiments feed into this research and together solutions are formulated.

About four times a year, participants of the Green Deal gather to provide inspiration via presentations on Flemish and foreign cases. During this event, workshops are organized to work on concrete issues that the participants table, such as tools and measuring instruments. The point is to work as a team to find out what the transition to a circular economy implies for the construction sector.

The members commitment in the Green Deal are:

-) to carry out at least one pilot project during the term of the Green Deal (possibilities: carry out a construction project, offer a site, carry out research, offer circular products or services, develop circular materials, facilitate circular building processes...) and to put all relevant data, results and lessons from the pilot project to the researchers of the living lab Circular Building. In 2022 BESIX will launch the project 'Fonsny' as a new pilot project.
-) to actively participate in the learning network where you exchange knowledge and experiences with the other participants. BESIX actively participates in the Communities of Practice and workshops, specifically the ones on 'Material and Business passport' (in collaboration and prepared with OVAM and TEN), 'circular business models' and 'demolition inventories as a starting point for urban mining'
-) to take the necessary steps to structurally embed the principles of circular construction in their own organization.

More information can be found on [Green Deal on Circular Construction - Circular Construction - Circular Flanders \(vlaanderen-circulair.be\)](http://Green Deal on Circular Construction - Circular Construction - Circular Flanders (vlaanderen-circulair.be)).

3.4. Circulair Betonakkoord Vlaanderen (BESIX, BESIX Infra)

The 'Circular Betonakkoord Vlaanderen' initiative, launched on 18/12/2020 is part of Flanders Circular and supported by the project partners Groen Beton Vert (GBV), the Flemish Construction Federation, the Belgian Building Research Institute (BBRI), the Federation of Producers of Recycled Granulates (FPRG), the Confederation of demolition & dismantling contractors (CASO) and Fedbeton is the follow-up of the Circular Concrete initiative which ended end 2020.



It is technically possible to use recycled aggregates in new concrete, alternative binders are becoming market-ready and there is potentially a sufficient supply of high-quality secondary raw materials. Despite the rising demand for "circular concrete" and the increasing number of companies that offer innovative "green" concrete, the big wave of circular concrete projects is still not happening. Project ambitions are diluted or face practical problems and the pilot projects do not appear to be easily scaled up. The use of circular concrete is not self-evident and the chain is not optimally organized.

By opting for a "top-down" systemic approach the partnership aims on a broad commitment on a Flemish scale from all relevant parties (policymakers, clients - public and private, designers, construction companies, producers - precast concrete/landfill concrete, demolishers, recycling companies and crushers). By analogy with the Dutch Concrete Agreement, a joint ambitious path towards the future is set.

In co-creation with all stakeholders, an answers to the most important system bottlenecks such as integration of sustainable solutions in tenders, lack of trust and good value chain cooperation and shortage of high-quality aggregates will be formulated. Instruments to translate this commitment into concrete results will be developed at the technical (standard texts for demolition and concrete works, new market forms) and policy levels (incentives, obligations, steering of material flows).

At the end of the project period (dd. 17/12/2022), the participants will endorse the ambitions of the elaborated path in a Flemish concrete agreement.

BESIX Infra, as chairman of the FPRG, is represented in Project Group. BESIX is a member of the Steering Committee and the Transition Group. For a full list of participants – please refer to [PowerPoint Presentation \(circular-concrete.be\)](#).

3.5. BouwCirculair - werkgroep Eigenaarschap Infrastructuur (BESIX)

BouwCirculair is a knowledge sharing network that aims for the use of sustainable products in the construction sector, to reduce carbon emissions and to stimulate the use of



circular raw materials. BouwCirculair connects all the links in the value chain and organizes meetings, provides courses, initiates projects and develops practical instruments. In addition, BouwCirculair is committed to realize innovations by connecting parties in the value chain, setting up pilot projects and involving schools and students in projects. For a full list of members, please refer to [Home - BouwCirculair](#)

End 2018 the 5-year 'Uitvoeringsprogramma Circulaire Bouweconomie', a collaboration between government and the industry, has been launched which must result in 2023 in the "basecamp", a number of instruments, supporting material and conditions to facilitate the next steps into the transition to a circular economy. Within the program, BouwCirculair works on 27 themes which will be presented at the end of 2022 during the BouwCirculair Congress 'De Circulaire Spurt'. ([Spurt2023 - Bouwcirculair](#))

BESIX actively participates in the workgroup 'Ownership Infrastructure', a workgroup to promote circularity by giving ownership to materials/projects. The working group lists the advantages and disadvantages of

ownership. This listing offers a guideline for projects based on ownership. The working group is developing a proposal for implementing 'ownership' projects.

More information and members of this workgroup, please refer to <https://bouwcirculair.nl/nieuws/10-eigenaarschap-infrastructuur/>

3.6. Ode Warmtenetwerk (BESIX Unitec)

Ode is the sector organization for sustainable energy in Flanders. Through consultation and political work, ODE is working on a 100% renewable energy system.



Warmtenetwerk Vlaanderen (WNVL), the technology platform for heat networks of ODE, was founded in 2012 with the support of the Dutch Foundation 'Warmtenetwerk' and has 82 members in Flanders. The objective is to stimulate a supported development of sustainable heat and cold networks.

BESIX Unitec is a member of the Ode-Warmtenetwerk.

More information can be found on www.warmtenet.ode.be

3.7. BBRI – Technical Committee Smart & Sustainable Constructions (BESIX)

The Technical Committee (TC), launched in 2018 and since 2020 presided by BESIX, focuses on the following themes within the Horizon Europe framework:



-) New business models, based on SMART technologies and circular principles. Amongst others via a 'SMART Maintenance' project for which an innovation paper on this theme will be developed to help large and small contractors on the right track.
-) The working group 'Relationship building – environment' to make it possible to better define the role of the contractor in the energy systems of the future (energy flexibility, district grids, temporary storage, etc.) and to start up new research projects.
-) The development of insights, instruments and innovations in the field of the environmental impact of buildings and construction materials through various R&D projects, the development of standard methodologies, tools and benchmarks towards future regulations.
-) The translation of circular solutions into usable information for the contractor via e.g. BuildCircular.brussels, the Green Deal and/or Innovation yard Circulair Construction

Within the TC three workgroups have been initiated:

-) Workgroup 'Environmental impact (& life cycle costs)'
-) Workgroup 'SMART & data driven maintenance (& operation)'
-) Workgroup 'Interaction building-environment (voor sustainable residential areas & cities)'

More information can be found on [Smart & Sustainable Constructions \(wtcb.be\)](https://www.wtcb.be)

3.8. The Lightness project (BESIX, i.LECO)

LIGHTNESS is a Horizon 2020 EU funded project carried out by 13 partners from across Europe that aim to increase the penetration of Renewable Energy Sources, to achieve the EU target for 2030 of at least 32% of final energy consumption. All that by supporting the market uptake of Citizen Energy Communities through a low-cost turnkey social engagement, regulatory roadmap and technological package to unlock their full flexibility potential, reduce the final energy consumption and CO2 emissions and bring economic, social and environmental benefits to the communities and across the energy value chain.



The power of this project lays in its holistic approach. User engagement, regulatory assessment, technology evolution, simulation and assessment, case study deployment, demonstration & replicability all are aspects of the project grouped in work packages. i.LECO actively takes part in all work packages and additionally leads work package 4 – “Evolution and integration of the CEC platform” (CEC – Citizen Energy Communities).

LIGHTNESS has started in December 2020 and will take 36 months to complete. First 24 months focus will be brought to life energy communities in 5 European countries: the Netherlands, France, Italy, Spain and Poland. That includes a lot of activities as at first it has to be checked what are legal limitations and inhibitors, create business models, engage people and of course prepare a platform, which supports scenarios for all cases.

More information can be found on <https://www.lightness-project.eu/>

3.9. The Hestia project (BESIX, i.LECO)

HESTIA is an EU funded Horizon 2020 project developing a cost-effective solution for the next-generation demand-side response services by encouraging residential consumers to engage in flexibility sharing and grid balancing. User-personalized services will help lay the foundation for an open marketplace and a new grid reality.



The HESTIA consortium is composed of 19 partners from 9 countries (Italy, France, Austria, Belgium, Netherlands, Spain, Ireland, Denmark and Serbia), gathering energy service providers, pilot sites, R&D institutions, and public authorities, as well as industrial, technological, consulting, and investment companies. i.LECO will deliver the blockchain-based LES platform that will set the foundation for an open marketplace with potential for “community trading” and flexibility sharing on all pilot sites. i.LECO is also developing the designated user visualization and communication interfaces for consumer engagement.

HESTIA started in December 2020 and will take 36 months to complete. During this period, 3 energy communities will be established in the Netherlands, France, and Italy. These pilots will provide a wide diversity of demonstration opportunities in terms of population densities, consumer categories, geographical locations, and climates.

More information can be found on <https://hestia-eu.com/>

4. Passive participation in sector and/or value chain initiatives (2.D.)

Both BESIX, BESIX Infra and BESIX Unitec participates passively in the following sector and/or value chain initiatives:

- J Waterstof Industrie Cluster (www.waterstofnet.eu) (BESIX)
- J VCB Commissie Leefmilieu (BESIX, BESIX Infra)
- J Sustainability workgroup and workgroup 'Carbon calculator' within the European Federation of Foundation Contractors (Franki Foundations)
- J Bouwend Nederland - initiatives 'De Groene Koers' ([Home • De Groene Koers](#)) and 'Klimaatadaptief Bouwen met de natuur' (www.kanbouwen.nl) (BESIX Nederland)
- J Centrum Ondergronds Bouwen – platform sustainability ([Platform Duurzaamheid - COB](#))
- J Bouwcampus – transition trajectory 'Verduurzaming Gebouwen en Omgeving' ([Trajecten \(debouwcampus.nl\)](http://Trajecten(debouwcampus.nl)))

5. In 2021 finalized sector and/or value chain initiatives (3.D.1)

5.1. RejuveBit (BESIX Infra, Belasco)

BESIX Infra and Belasco, in collaboration with the University of Antwerp, the Belgian Road Research Centre (BBRC) and the Administration Roads & Traffics (AWV), participated in the TETRA-project REjuveBIT which was initiated in 2018.



The overall aim of the project was to assess the application of rejuvenating agents in the asphalt sector so that their innovative use leads to an increase in the recycling percentage of reclaimed asphalt. This assessment includes a technical, economic and environmental part. The innovative character is demonstrated for the sector by means of test tracks with new applications (surface courses) and increased recycling percentages (base courses).

To conclude the project, a study day was organized on January 28th, 2021. You can find the presentation of the study day here ([PowerPoint-presentatie \(uantwerpen.be\)](#)).

More information can be found on [REjuveBIT | Energy and Materials in Infrastructure and Buildings | University of Antwerp \(uantwerpen.be\)](#).

5.2. Strategic Business Innovation Research (SBIR) Circular viaducts (BESIX)

As from 2030, Rijkswaterstaat wants to work climate neutral and circular which also apply for the construction, replacing and renovation of bridges and viaducts.

With the Strategic Business Innovation Research (SBIR) Circular Viaducts, Rijkswaterstaat wants to develop useful innovations for circular viaducts which it can then apply as a launching customer.

The Open Learning Environment Circular Viaducts & Bridges is an initiative of De Bouwcampus and Rijkswaterstaat in response to the first circular viaduct at the Reevesluis. With 60 participants from the private sector, governments and knowledge institutions, we exchanged knowledge and experience about the circular construction of viaducts and bridges,

With the SBIR, several solutions are developed simultaneously by different parties. This starts in the area of modular, detachable solutions; solutions with high-quality reuse; and solutions made of renewable materials. This increases both the market and the number of 'available' solutions. The SBIR was initiated in October 2020.

Out of more than 30 candidacies, the BESIX and Ney & Partners consortium was selected, with nine other companies, to further develop their concept of a Circular Arc Viaduct with a feasibility study. For the last phase of the SBIR three concepts were selected in March 2021 to proceed to the development of a prototype. Unfortunately the concept of BESIX and Ney & Partners was not selected for this last phase.

The BESIX and Ney & Partners concept of the Circular Arc Viaduct consists of a dismountable viaduct made up of arch elements consisting of Ultra High Strength Fibre Reinforced Concrete (UHSVB) and a substructure of circular geopolymers concrete with 100% recycled building materials and renewable pile foundations.

The strength of the Circular Arc Viaduct lies in the following core themes:

-)] substantial material reduction through application of UHSVB
-)] a modular, demountable and reusable design
-)] application of renewable and low environmental impact materials in substructure and foundation.

By means of form finding, a design has been developed for the Circular Arc Viaduct which is technically feasible, with a reduction of the MKI value by up to 52% and a reduction of the TCO (Total Cost of Ownership) by 15%.

This feasibility study was carried out with our cooperation partners VITO, Haitsma, ResourceFull, Franki Grondtechnieken, Maurer and Université Libre de Bruxelles.

More information can be found on [Home - circulaireviaducten.nl](https://www.home-circulaireviaducten.nl) and [Circulair Boogviaduct - BESIX](https://www.circulairboogviaduct-besix.nl).

5.3. Stichting Nederland CO₂ Neutraal (BESIX Unitec Nederland BV)

Network of more than 200 companies and government organizations with the objective to exchange information during events and workshops on nitrogen, hydrogen, mobility, circularity and energy.



BESIX Unitec Nederland BV participated from 2016 till end 2021 actively in a number of workgroups (Mobility, Gas & Elektra). Membership has been ended in 2022 due to the integration of BESIX Unitec Nederland BV (former Agidens Infra Automation BV) in BESIX Group.

More information can be found on www.nlCO2neutraal.nl.

5.4. Circular concrete (BESIX)

The 'Circular Concrete' Project, supported by BBRI, ran from 2018 till end 2020 and aimed to generate innovation in products & technologies and to further stimulate the use of existing innovations by users.



The project consisted of 4 major work packages:

-) overview and evaluation of existing technologies
-) validation in lab conditions of 5 promising technologies
-) application and follow-up of interesting solutions in 10 pilot projects
-) chain analysis (costs, LCA,...) to support the actual added value for the economy and the environment

The information and knowledge gathered during the project has been transferred to the construction sector by means of publications, information sessions and network events.

A closing event took place on 29/04/2021. A video on the closing event as the presentations can be downloaded from [Slotevent - 29/04/2021 - Online - Circular Concrete \(circular-concrete.be\)](https://www.slotevent-29/04/2021-online-circular-concrete.be).

More information can be found on [Circular Concrete : Beton in de circulaire economie \(circular-concrete.be\)](https://www.circular-concrete.be)

5.5. Internet of Energy (IoE) - Enleash (BESIX)

The IoE Ecosystem is an open innovation ecosystem with the objective not only to share knowledge and boost innovation in the energy world but also to create the environment to build, test and learn from new energy applications for consumers and new digital tools for a more efficient system operation. It is an ecosystem built and facilitated by system operators for market parties to develop the energy services of tomorrow. These services, the consequent digital tools and market design elements are developed in an iterative and progressive approach from ideation to sandboxing, through demonstration towards industrialization.



Enleash (from 2019 till 2020) was a journey initiated by driven and complementary partners from different industries and sizes. The common starting point of this journey is the partners' shared acknowledgement of the importance of comfort levels in buildings and of the energy efficiency potential of those buildings. By combining these two elements, Enleash creates cross-sector value for various stakeholders, while ensuring the consumer is at the center of the future electrical system.

While consumers are more and more concerned about their comfort, personal data and willing to be empowered, worldwide, we see major trends affecting our societies; 3 D's, Digitalization, Decarbonization and Decentralization. As a consequence, more renewable energy sources are developed, which, due to their inherent intermittent character, will require electrical system to become more flexible.

On the other hand, there is a huge potential for energy efficiency with buildings. According to some sources between 40 and 60% of energy is consumed by large buildings. Nevertheless, business owners are more concerned about the comfort and productivity of their employees than of the efficiency. This has a larger impact on their day-to-day operations and profits.

The current evolution in technology will be key in the successful evolution of our economies in the energy transition. Smart buildings, and in a larger perspective, smart cities are already being developed to ensure advanced comfort and efficiency. However, the contribution of these smart buildings to the system and market needs is still at its embryo stage.

With that challenges and opportunity in mind, Fluvius, BESIX, Proximus, byNubian and Elia brought their strengths together within the IO.Energy Ecosystem to answer one question: **How might unlock and valorize the energy potential in large commercial real estate while preserving employees comfort and productivity?**

The result of this project and much more information can be found on [IO.Energy Ecosystem co-creating a consumer-centric system](#)