



Integration in the city	The world of work	Dialogue	Mobility	Setting an example	Use of resources	Environmental certification & compliance	Reporting & recognition	Ethics	CSR governance
				Water energy CO ₂ e emissions	Responsible procurement	Circular economy			

USE OF RESOURCES



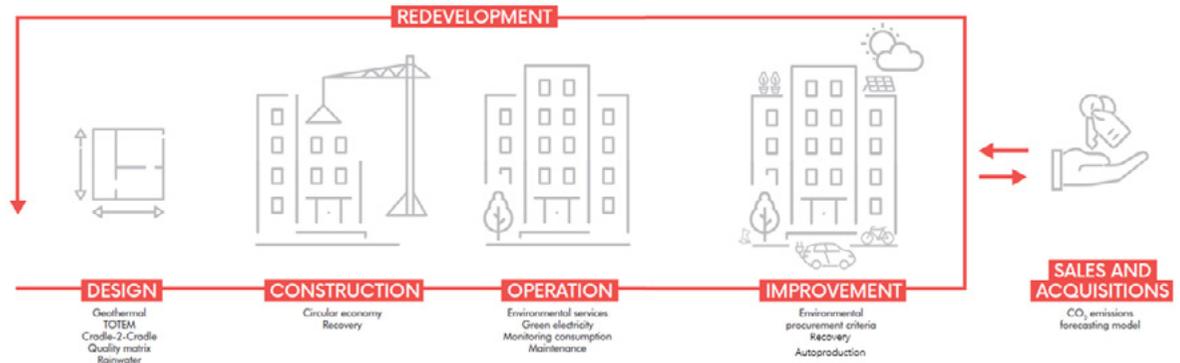
- Water | energy | CO₂e emissions -

- Responsible procurement -

- Circular economy -

Befimmo is sensitive to the expectations of its stakeholders and is aware that its environmental impact affects all levels of its business and value chain as illustrated in the figure hereafter.

We will start by describing the impact management linked to energy and water consumption. We will then describe the approaches for responsible procurement and circular economy, enabling to reduce the impact linked to construction material and their transport.





USE OF RESOURCES: WATER | ENERGY | CO₂e EMISSIONS

- Environmental footprint, greenhouse gas emissions -



DESCRIPTION

The depletion of fossil-fuel resources and global warming are the main environmental impacts on which Befimmo must act as a responsible landlord.

Energy consumption related to a building's life cycle is a very significant share of the environmental impact linked to the property business, such as the acquisition or sale of assets, the renovation or construction of buildings and their use.

To a lesser extent, water consumption is also an important topic for the real-estate service sector. Befimmo is always very sensitive and careful about conserving this resource as far as possible.

Today, the intrinsic value of a building includes criteria related to sustainable development, which reflect attention to and awareness of the climate issues on the international agenda.

Among these, the COP21 (2015) enabled to set a goal of stabilising global warming due to human activities "significantly below" 2°C by 2100 (relative to the temperature of the pre-industrial era) and even aim to limit this temperature rise to 1.5°C.

OBJECTIVE

Befimmo is investing to reduce the environmental impact related to its real-estate activities.

It aims to continue marketing and offering its tenants high-quality and environmentally-friendly buildings.



Achieving these objectives at European level necessarily entails drastic cuts in greenhouse gas emissions of some 80 to 95% by 2050 in relation to the level of emissions in 1990.

Belgium's commitment to this process has led to the development of a low-carbon strategy up to 2050. Nevertheless, it is regrettable that Belgium was unable to support the "High ambition coalition" at the COP24 of 2018, for which some 30 participating countries aim to be at the very forefront of climate action. Early 2019, Befimmo showed once more its involvement and engagement to fight climate change by becoming a leader for "Sign for my Future"¹.

Given the scale of its property business, its local roots and its use of resources, Befimmo continues to work on the environmental aspect of its Social Responsibility.

Moreover, Befimmo considers that a broad and clear vision of energy consumption is a basic requirement, essential to the good management of its buildings.

The systems for measuring and collecting consumption that Befimmo has developed and consolidated over the past few years have given it a good understanding of its environmental impact.

Apart from having full and reliable information, its policy of reducing the use of resources means that it must also factor in certain constraints related in particular to the expiries of leases², the occupants' needs for comfort³, and at the lowest level, the control of private installations.

All of these factors are part of the challenges and points requiring attention that Befimmo intends to keep addressing in the day-to-day management of its assets.

APPROACH

1) Energy efficiency

Rational use of energy and CO₂e emissions generated by its consumption are integrated into Befimmo's day-to-day management, throughout all the operational processes.

At the acquisition

The overall environmental performance and energy consumption, in particular of buildings subject to acquisition projects, are analysed in the context of detailed environmental and technical audits carried out by Befimmo's teams and supplemented, as needed, by the expertise of specialist external consultants.

The conclusions of the audits and the energy aspects in particular are incorporated into an in-house decision tool developed on the basis of Science-Based Targets. This tool, presented and validated by the Management, reflects the energy performance in the form of CO₂e emissions and assesses the impact of the asset on the overall objective of reducing CO₂e in the long term (-33% by 2030).

As the case may be, the tool identifies any potential improvement work, budgets and the timescale required to achieve the desired objective.

¹ <https://signformyfuture.be/fr/>

² Major works that allow a complete overhaul of a building, incorporating an energy strategy that goes beyond the statutory obligations, can generally take place only on the expiry of a lease. Indeed, such work involves altering the building's envelope and technical installations that are hardly compatible with the premises being occupied.

³ Befimmo leases require it to provide minimum comfort conditions for the occupants of its buildings. However some tenants, on account of the nature of their business, require the technical installations to operate for longer hours, which entails additional energy consumption.



At construction and operational level

In addition, in the context of building design and construction, Befimmo's teams pay particular attention to the study and design phases of future projects that they develop, in terms of the choice of materials and the optimisation of techniques to minimise energy consumption during the operational phase of its buildings.

The choice of materials and techniques to be implemented in the projects is made in particular on the basis of the extent of the works to be carried out on the BREEAM certification criteria and/or on the minimum technical requirements developed in-house and incorporated into a quality matrix.

→ See "Use of resources - Sustainable procurement" hereafter

With this approach and this objective, Befimmo aims to achieve energy efficiency that exceeds the statutory requirements.

The Environmental Technical Team and the team of about 15 Property Managers in charge of the operational management of the buildings are also involved in each project when the works programme is implemented and during the analysis of the projects. They provide the development teams with support and operational thinking based in particular on their experience.

These teams can call upon the Green Adviser who plays an important role in monitoring the effectiveness of energy investments on the ground while ensuring a high level of comfort for tenants.

This important work helps to structure the process and work towards a coherent overall vision on sustainable development. It also allows each project to be compared with the needs and requirements of the market and to ensure that proper thought is given to good resource management and limiting consumption. Finally, the feasibility of incorporating renewable self-generated energy systems is systematically considered for each project and, if adopted, ensures that it has a positive impact on the environment.

2) Managing and exploiting consumption data

All energy-consumption data and information for the portfolio are obtained via (i) the utility companies and energy suppliers, (ii) maintenance companies, (iii) telemonitoring of consumption, (iv) the in-house manager and (v) the building occupants.

Telemonitoring now covers a large part of the buildings of the portfolio and corresponds to the need for information coming directly from the technical installations. The buildings equipped with this facility are mainly those over which Befimmo has a significant level of control, enabling it to take immediate specific action that can lead to energy savings. This means working on the network infrastructure in some of its buildings and ongoing awareness-raising among the occupants of certain sites on which Befimmo does not control of the electricity supply.

All building consumption data are recorded in an in-house database which can also generate detailed reports useful for benchmarking, strategic thinking, provision of information for occupants and decision-making.

→ Sheet on "Dialogue"

3) Cutting CO₂e emissions

In addition to measures to optimise energy efficiency, Befimmo has been limiting the CO₂e emissions of its portfolio by investing each year since 2010 in self-generation and/or renewable energy systems such as photovoltaic solar panels, cogeneration systems (2 buildings) and geothermal energy (2 building projects).

At the same time, Befimmo is pursuing its objective of covering its entire portfolio by 2021 with green electricity supply contracts. Ceci suppose d'une part la mise en œuvre de travaux d'infrastructure réseau dans certains de ses bâtiments et d'autre part la sensibilisation permanente des occupants de certains sites vis-à-vis desquels Befimmo ne dispose pas de la maîtrise de la fourniture d'énergie.

→ See "Use of resources - Responsible procurement" hereafter



The possible additional cost of green electricity supply contracts, in line with the objectives to reduce Befimmo's CO₂e emissions, is offset by negotiating a deal for the whole portfolio.

4) Rational use of water

Befimmo considers that water consumption of its buildings is also an important topic on which it intends to act.

It therefore pays particular attention in each of its development projects to incorporating water recovery systems, leak detection, and deploying low-consumption appliances, in particular following the guidelines provided by the BREEAM certification and its in-house quality standards.

These appliances are generally supplemented by telemonitoring where available, as well as a detailed and daily monitoring of the portfolio consumption by Befimmo's Green Adviser. This system allows an ongoing optimisation of consumption and a limitation of leaks.

ACHIEVEMENTS 2019

Multi-annual investment plan

In addition to the budget allocation, in the context of the construction and redevelopment projects for its buildings, the optimisation of environmental performance and the anticipation of the associated regulations, Befimmo is implementing a specific multi-annual investment plan, with the aim of carrying out work to optimise the environmental performance of operational buildings⁴ and generally leading to an improvement in the BREEAM In-Use certification of the buildings. In 2019, the budget allocated to these works, which was fully integrated into the Company's internal mode of operation via the quality matrix it has developed, was of the order of €0.5 million.

➔ See "Use of resources - Responsible procurement" hereafter

Green energy: study of the potential for installing photovoltaic panels throughout the entire portfolio

In 2017, Befimmo carried out a study of the potential for installing photovoltaic panels throughout its entire existing portfolio. Depending on the configuration of the buildings and any subsidies granted on account of their geographical situation, the study helped to define a number of opportunities for projects to be implemented rapidly, together with the technical and financial resources required.

In 2019, 650 m² of solar panels were installed on two buildings located in Brussels. This complementary surface has been added to the 3,854 m² of panels already installed.

⁴ Replacement of old technical installations with more energy-efficient equipment, implementation of new equipment management technologies, installation of water-recovery systems, improvement of insulation, fitting of photovoltaic panels, heat pumps, etc.



Self-generation by all these installations covers electricity needs equivalent to the annual consumption of ±150 households.

The feasibility study conducted in 2017 will be pursued in 2020. The installation of solar panels on buildings to be built and/or renovated will be considered systematically.

Electricity supply contract for the portfolio

Until it achieves its target for reducing CO₂e emissions without compensation by 2030, Befimmo has already voluntarily limited its environmental impact by subscribing to a green electricity supply contract to cover the consumption of the electrical installations under its control.

To guarantee that the electricity consumed by its entire portfolio is of green origin, it has set itself the goal, as soon as it is technically and administratively possible, to take back the meters of the electricity installations that it does not control under a green energy contract.

In 2019, Befimmo took over about 10 private electricity supply meters under the same conditions as its green energy supply contract.

This positive approach will be continued in 2020 with the aim of achieving and maintaining a 100% green energy supply for all its meters by 2021.

Befimmo's CO₂e emissions reduction targets do not take account of the positive impact related to its green electricity supply contract, as it primarily aims to reduce the portfolio's energy consumption.

Geothermal energy

The ongoing construction works in the Quatuor project (four buildings together forming a complex of 60,000 m²) in the North Area of Brussels include a geothermal system. The aim is to design an innovative and sustainable office building, combining low energy consumption with an excellent thermal comfort.

In two of the four towers, the low-temperature heat is provided by a heat pump connected to a geothermal storage field while the "high-temperature" cold is provided by geo-cooling, using the same geothermal storage field.

The use of this type of technology is expected to reduce energy consumption and CO₂e emissions by 20 to 30% compared with a "traditional" solution in which all heating and cooling needs would be met by conventional installations (condensing boilers and chillers).

Given this very positive outcome, Befimmo aims to carry out a new study in 2020 on the potential and the feasibility of developing new projects based on the geothermal principle in its existing portfolio.

Finally, the ZIN redevelopment project in the North area also embraces this principle of sustainability.

Optimising the operation of technical installations

In 2018 Befimmo installed new software in some buildings to analyse the data from the regulation systems.

Initially, all the data from the programmable or other controllers in the network are recorded at regular intervals to create a "big data" system.

Then, the software processes the big data to present the information in a summarised and practical form so that the behaviour of the installations can be analysed in real time or at a later stage. Furthermore, it allows the exact functioning of the processes to be understood and any problems with the design, regulation or control of the installations to be detected.

In the event of a problem, this tool can examine the whole chain of processes that led to the dysfunction and trace the cause. This makes it a good tool for limiting energy consumption and for anticipating and reducing complaints from tenants.



In the specific case of one building in the portfolio, this system has enabled the building's overall energy consumption to be cut by 18%, for a financial saving way in excess of the amount invested.

Befimmo will continue to roll out this solution in other buildings that it has already identified in the portfolio.

Befimmo also invested in the fitting of centralised technical management systems in some of its buildings that had not yet been equipped. These installations will enable further savings of energy to be made and better monitoring of the comfort conditions in buildings and for their occupants.

Water management

At the end of 2019, a total of 110 water-recovery systems (rainwater - grey water - boreholes) were installed in 22 buildings in the Befimmo portfolio, representing 19% of its total floor area. Furthermore, all building/renovation projects examined and developed in 2019 incorporate such devices, which are in line with Befimmo's aim of reducing the mains-water consumption of its buildings.

Befimmo is maintaining the goal of reducing the water consumption of its portfolio by 15% in relation to 2016 by 2030. It will keep monitoring consumption, replacing obsolete equipment high-performance equipment and raising awareness among users and maintenance companies.

ASSESSMENT

Since 2010, Befimmo implemented an Environmental Management System (EMS) based on the ISO 14001 standard. It ensures a systematic approach to the environmental aspects of its activities and also contributes to the sustainable ongoing implementation and monitoring of its commitments.

[→ Sheet on "Environmental certification & compliance"](#)

More specifically, in terms of the use of resources related to energy and the associated CO₂e emissions, in 2017, Befimmo developed a model and a method based on the SBT⁵ principles that enable it to assess its environmental performance and to compare it with the long-term targets that it has set itself.

[→ Annual Financial Report 2019, appendix VI "Methodology"](#)

CO₂e emissions related to energy consumption have been constantly declining (13.1 kg CO₂e/m² in 2019, as against 43.3 kg CO₂e/m² in 2008). This 70% reduction in specific emissions is the result of continuous investments designed to improve the energy and environmental performance of the buildings, combined with the signing of a contract for the supply of green electricity to cover consumption of controlled electric installations of its buildings.

Befimmo believes that the targets it has set for 2030 are ambitious but achievable. It intends to continue with the investments and all necessary steps to achieve them.

⁵ Science-Based Targets.



IMPACT ON THE SUSTAINABLE DEVELOPMENT GOALS

The in-depth analysis of the Sustainable Development Goals (SDGs)⁶, conducted in 2017, enabled Befimmo to identify the issues on which its activities could have a positive or negative impact and to define strategic priorities. According to this analysis, the strategic axis **Use of resources – Water, Energy, Global warming** impacts the targets of the following SDGs:



6.3: Consider reusing grey water and limiting the use of drinking water



7: There is still real potential for installing renewable energy generation systems, which should be studied, and access for tenants to the green electricity supply contract.



11.6: Reduce the use of fossil fuels to curtail air pollution in cities



13: There is still a margin for improving energy efficiency in the portfolio

KEY INDICATORS AND OBJECTIVES

INDICATOR	DESCRIPTION	RESULT 2019	OBJECTIVE 2030	TIMEFRAME	REFERENCES GRI STANDARDS & EPRA SBPR
CO₂e emissions of the portfolio	CO ₂ e emissions linked to energy consumption of the buildings for common and private installations	23.75 kg CO ₂ e/m ²	18.1 kg CO ₂ e/m ²	2030 (limitation to 2°C)	EPRA GHG-Indir-Abs EPRA GHG-Dir-Abs GRI 305-1 GRI 305-2 GRI 305-5 CRE3
Specific water consumption	Tap water, rainwater, drilling water, grey water from the portfolio	265 l/m ²	216 l/m ²	2030	EPRA Water-Int GRI 303-1 CRE2

Since 2017, Befimmo has increased and consolidated its non-financial reporting perimeter by including the buildings leased by the Buildings Agency.

In fact, to implement a strategy of reducing energy consumption in the long term, it is essential to have a comprehensive view of the consumption of its portfolio as well as detailed and structured energy accounting.

⁶ <http://www.un.org/sustainabledevelopment/>



Reduce the use of fossil fuels and increase self-generation capacity in renewable energy

Befimmo aims to reduce by 50% its direct CO₂e emissions related to the heating of buildings by 2030. Apart from structural investments, this implies a transition from the use of equipment burning fossil fuels to alternatives such as geothermal energy and/or heat pumps.

In 2020, Befimmo will analyse the potential to install geothermal systems in the entire portfolio.

This switch from one form of energy to another will entail a potential increase in the electricity consumption of the buildings, which Befimmo intends to anticipate and control.

In addition, Befimmo still has a target of cutting the CO₂e emissions related to controlled indirect energy consumption by 17%, and the CO₂e emissions related to uncontrolled indirect energy consumption by 17% (excluding offsets) of its buildings. It is well aware that this ambitious aim of reducing its environmental impact can be influenced by the constantly changing needs and behaviours of society, the world of work, especially through the use of new technologies and/or a new form of mobility that is now more geared towards electricity, but it intends to stand firmly by this target.

This approach assumes flexibility and anticipation of the electricity needs that Befimmo will immediately integrate into all of its projects.

Finally, to achieve its objectives, Befimmo's ambition is firstly to maximise and/or develop existing and future renewable energy generation facilities, and to achieve 100% use of green energy across its entire portfolio, including private areas, by 2021.



USE OF RESOURCES: RESPONSIBLE PROCUREMENT

- Extend Social Responsibility throughout the supply chain -



DESCRIPTION

Befimmo's real-estate activities require substantial quantities of building materials. Meanwhile, corporate, service and facility activities consume furniture and office supplies.

The production of these materials requires natural and energy resources that have a significant impact on the environment. Transporting them is also a source of pollution and traffic congestion.

Befimmo intends to raise awareness among its suppliers in relation to budgetary constraints and technological availability, regardless of the history of its relationship with them.

OBJECTIVE

In 2020, Befimmo will continue to extend the adoption of its responsible procurement charter to its suppliers.

It also aims to improve continuously its environmental criteria and ensure their compliance for all its purchases.



APPROACH

- To further integrate the CSR approach into its supply chain, Befimmo has drafted a Sustainable Procurement Charter to clearly communicate the commitments it expects from its suppliers.
- This charter was published on the Befimmo website in early 2018. The standard terms and conditions required of all its suppliers will include abiding by the charter.
- The CSR and Environmental teams are responsible for raising the awareness of Befimmo's buyers by offering them procurement criteria guidelines. These criteria are inspired by those used for public procurement by various administrations.
- Since 2017, the environmental impact is integrated into the minimum technical requirements for buildings. From the operational standpoint, these criteria are included in the quality matrix. It is the outcome of cooperation between Befimmo's various real-estate departments (Commercial Management, Environmental Management, Property Management, Services & Facilities and Project Development) and includes the technical requirements in terms of:
 - » Design;
 - » Operations;
 - » Comfort and well-being;
 - » Energy and environmental performance;
 - » Choice of materials.

This matrix is inspired by the guidelines that Befimmo follows for BREEAM certification. It evolves in line with technological progress and feedback from the field.

These technical criteria systematically serve as a basis for the drawing of specifications.

ACHIEVEMENTS 2019

Since 2018, within the framework of a continuous improvement process, Befimmo has made its quality matrix operational. Firstly, the quality requirements (including environmental requirements) for operating techniques are annexed to all order forms. Secondly, the environmental criteria are taken as a basis of the specifications for the design and renovation of buildings.

Finally, the responsible procurement charter is communicated to all suppliers through orders.

ASSESSMENT

The Environment department is responsible for maintaining, complying and updating the quality matrix through the environmental management system ISO 14001.

IMPACT ON THE SUSTAINABLE DEVELOPMENT GOALS

*The in-depth analysis of the Sustainable Development Goals (SDGs)⁷, conducted in 2017, enabled Befimmo to identify the issues on which its activities could have a positive or negative impact and to define strategic priorities. According to this analysis, the strategic axis **Use of resources - Sustainable procurement** impacts the targets of the following SDGs:*



8.4: Creating real-estate value while minimising environmental impact



11.6: Environmental impact related to the use of buildings and pollution related to construction waste



12.2: Impact on natural resources of the production of building materials and installation

⁷ <http://www.un.org/sustainabledevelopment/>



USE OF RESOURCES: CIRCULAR ECONOMY

- Circular economy in at construction, renovation and operational level of buildings -



DESCRIPTION

At all stages of its life cycle, a building generates substantial flows of material (building waste, building material, operational waste, interior design, furniture, etc.).

Befimmo's stakeholders want it to take account of the indirect environmental impact from these various flows, and pro-actively contribute to reducing them in the design and management of buildings.

The strategy in terms of use of resources takes these expectations into account through the incorporation of the circular-economy principles into the management of each phase of a building's life cycle.

Furthermore, special attention is paid to the operational waste generated by its corporate activities.

OBJECTIVE

The short-term goal is to limit waste production of the portfolio and decrease the use of resources.

In 2020, Befimmo will continue to be proactive in material and furniture recovery for all of its construction sites and when tenants leave.



APPROACH

Impact of construction sites

- Involvement of the Environmental team, particularly through the quality matrix, in investment projects to support decisions on the choice of construction or renovation scenarios:
 - » Select construction and renovation scenarios based on measurements of societal impact and life-cycle analyses;
 - » Taking into account the disassembling and deconstruction capacity as from the design stage of buildings;
 - » Contribute to eco-design initiatives for materials and consider the use of recovered materials and/or materials with an environmental certification;
 - » Consider the materials/equipment coming from the service economy;
 - » Consider exploiting building material and waste on the site itself or for other applications, notably through the creation of an inventory re-use;
 - » In order to measure and compare the overall societal impact of various construction or renovation scenario's, Befimmo chose to take part in the TOTEM⁸ initiative by recommending its use for all projects employing an architect.

Impact of operating buildings

- Befimmo has implemented a waste management contract that it wishes to expand into the entire portfolio. This includes awareness-raising of users on waste sorting.
- In order to measure the efficiency, Befimmo collects and analyses the information on waste volumes per treatment type.

⁸ The TOTEM project, set up by the three Regions, consists of developing a method and tools for assessing the impact of materials adapted to the Belgian construction context. This method has been developed in line with European standards for assessing the environmental impacts of buildings.

ACHIEVEMENTS 2019

- The building contracts and the desired levels of BREEAM certification require contractors to be very strict in the management and traceability of waste produced by the sites. Manual workers and all stakeholders involved in the project are involved and educated in waste sorting. Waste management plans are drawn up by specialist consultancies while environmental coordinators are appointed in addition to the BREEAM coordinator to ensure proper waste management.
- Within the framework of the dismantling of the WTC Towers 1 and 2, an important work has been done to find transferees for as much materials as possible that had to be removed. Materials that will be re-used in the future project were stored in a space close to the site. Various recovery systems could be activated for the remaining materials. Hence, more than 900 tonnes were discharged to the re-use sector.
- Befimmo partnered with the Scientific and Technical Construction Centre (CSTC) within the framework of the [FCRBE](#) project (Facilitating the circulation of reclaimed building elements in Northwestern Europe). In 2020, it will participate in pilot projects, with the aim of increasing the re-used materials share in the context of its building sites.
- In the ZIN project, particular emphasis has been placed on the circular economy, using what Befimmo calls the 4R approach:
 - » REUSE: Maximum reuse of materials on site or in other projects
 - » REVIVE: Improvement of the existing structure and its environment
 - » RECYCLE: When materials cannot be reused, ensure they are transformed for other applications
 - » RETHINK: Ecological design and use of materials - cradle-to-cradle



ASSESSMENT

Production of construction and operational waste is measured, consolidated and compared from year to year to measure progress on recycling and reuse measures.

IMPACT ON THE SUSTAINABLE DEVELOPMENT GOALS

The in-depth analysis of the Sustainable Development Goals (SDGs)⁹, conducted in 2017, enabled Befimmo to identify the issues on which its activities could have a positive or negative impact and to define strategic priorities. According to this analysis, the strategic axis **Use of resources - Circular economy** impacts the targets of the following SDGs:



8.4: Creating real estate value while minimising the environmental impact



11.6: Environmental impact related to the use of buildings and pollution related to construction waste



12.4 & 12.5: Eco-design of materials and facilities and reduction of waste generated

KEY INDICATORS

INDICATOR	DESCRIPTION	RESULT 2019	OBJECTIVE	TIMEFRAME	REFERENCES GRI STANDARDS & EPRA SBPR
Part of the projects that includes material recovery	<p>A project is considered to be material recovering if:</p> <ul style="list-style-type: none"> It has an inventory of materials and an ambitious recovery target in the case of a redevelopment project; It has been visited by a recovery company in the case of a development project and the leave of a tenant. 	28%	100%	2020	GRI 301-2

⁹ <http://www.un.org/sustainabledevelopment/>