

# climate report

2023 EDITION



COVIVIO

# COVIVIO IN FIGURES

**1,050**

EMPLOYEES  
IN EUROPE

**12 COUNTRIES**

PRESENCE IN EUROPE WITH  
THREE PLATFORMS IN GERMANY,  
FRANCE, ITALY

**93.4%**

OF EMPLOYEES ON PERMANENT

**95/100**

2022 F/M EQUALITY INDEX

**50%**

WOMEN  
AND

**50%**

MEN PERMANENT  
EMPLOYEES IN EUROPE

**93.2%**

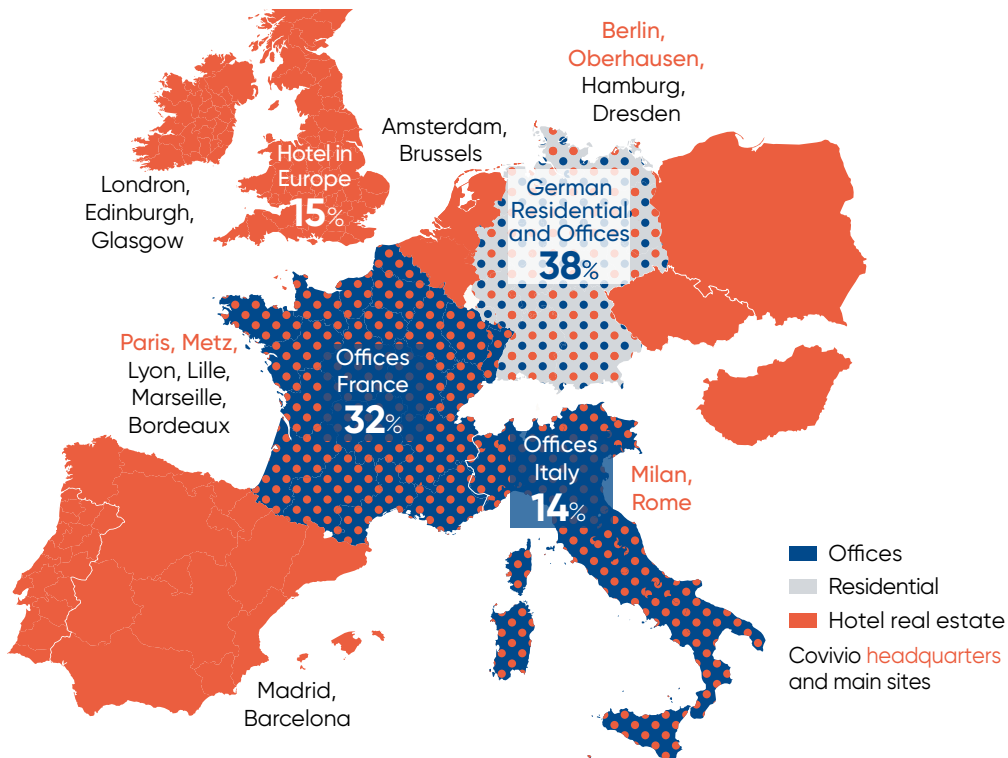
OF CERTIFIED ASSETS AT END-2022  
ON OPERATION AND/OR CONSTRUCTION

**31%** OF REVENUE AND **78%**

OF CAPEX ALIGNED WITH TAXONOMY  
(OPERATIONAL DEFINITION)

## Map of the Group's locations in Europe

(as value of Group share at the end of 2022)



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## FOREWORD

This climate report is part of the recommendations issued by the Group of climate experts constituting the Task Force on Climate-related Financial Disclosures (TCFD). It was created at the initiative of the Financial Stability Board to improve and increase climate-related financial reporting. This report takes into account the TCFD "guidance for all sectors" and "additional guidance" for asset owners and asset managers. The TCFD recommendations are primarily based on four pillars: strategy, risk management, metrics and targets, and governance, which are presented in detail in the following pages. This climate report shares a number of elements with the Annual Statement of Non-Financial Performance (SNFP), constituting Chapter 3 of Covivio's 2022 Universal Registration Document published in April 2023. This document is also referred to for more information on the Group's sustainable development strategy. Like the SNFP, this report is audited by an independent third party (page 40). Covivio's publications are available on the website: <https://www.covivio.eu/en>



## THE CLIMATE TRANSITION, A STRUCTURE- DEFINING CHALLENGE AT THE HEART OF OUR STRATEGY

The climate transition is the major challenge facing humanity in the 21<sup>st</sup> century. The contributions expected from buildings and cities are considerable: reducing the carbon, energy, ecological and water footprint, promoting biodiversity, all combined with social and societal concerns. These are all challenges to which Covivio's CSR policy responds through ambitious commitments and concrete actions, as evidenced by the following pages.

2022 was the year we moved forward from the Covid pandemic with a return to intense activity in our office buildings and hotels. The health crisis has had the effect of incorporating new ways of organising companies over the long term. 2022 was also marked by a tense geopolitical context, an historic change in interest rates and very sharp increases in energy prices in the second half of the year. Tensions over resources justified an energy conservancy plan initiated by the French State from October 2022, with corresponding measures taken in other European countries, aimed at reducing energy consumption by 10% by the end of 2024. At Covivio, this initiative was carried out along with the implementation of the provisions of the Tertiary Decree, in coordination with tenants and operators.

Over the past year, we have rolled out our carbon trajectory operationally and estimated the costs of work identified at €254 million by the end of 2030 to achieve our objectives in all our activities. Our ambition remains to reduce greenhouse gas emissions by 40% between 2010 and 2030 (Scopes 1, 2 and 3) and to target "net zero emissions" by 2030 on our Scopes 1 and 2. Our targets, already validated by the SBT initiative, were compared this year to the CRREM<sup>1</sup> scenarios on our various tertiary portfolios to ensure their relevance to this recognised initiative.

Like the initial climate report published in June 2022, this document is in line with the recommendations issued by the Group of climate experts constituting the Task Force on Climate-related Financial Disclosures (TCFD), an initiative of which Covivio became an

Official Supporter in March 2021. It is in this context that a "say on climate" resolution was proposed and largely approved by our shareholders (94%) at our General Meeting of 20 April 2023.

This year was also marked by progress on our biodiversity strategy, based on the "Global Biodiversity Score (GBS)" methodology. This first step led us to assess the impact of the Group's economic activities on biodiversity throughout the value chain, and to identify the main levers for reducing this impact (choice of materials, reduction of land use, etc.). Our work will continue in 2023 to set long-term objectives and associated action plans.

The resilience analyses that we are also conducting, in particular with MSCI, demonstrate the quality of our assets and their locations, and the relevance of our strategy to reduce greenhouse gases, securing the value of our portfolio over time. They have also enabled us to meet the obligations of the European taxonomy.

In order to go further in raising employee awareness and involvement in the Group's climate strategy, we launched the "Covivio 4 Climate - C4C" project in 2022. The first step consisted of carrying out a comprehensive carbon assessment of corporate emissions in order to identify the main sources of emissions on which to act as a priority. This analysis will be translated into an operational roadmap to involve all employees throughout 2023.

With the full support of our Board of Directors and its CSR Committee, and the strong commitment of our teams, Covivio is contributing to the environmental and societal transition, and intends to continue the transformation of the company, its products, services and know-how, with agility and a long-term vision that reinforces its resilience.

Christophe Kullmann  
*Chief Executive Officer (CEO)*

<sup>1</sup> CRREM: Carbon Risk Real Estate Monitor

# A BUSINESS UNDERGOING TRANSFORMATION

With a **€26 billion portfolio** (€17 billion Group share), Covivio is the leading diversified European real estate company. Covivio owns and manages real estate assets over a long-term horizon, while developing and renovating buildings in order to constantly improve the performance (technical, CSR, financial) of its portfolio. The strategy is organised around three pillars:

- **a stronger presence in major European cities** offering good market depth and an attractive economic outlook;

- **development projects as a driver of growth**, making it possible to continuously improve the quality of the portfolio and to be involved throughout the value chain;

- **a customer-centric** approach aiming to anticipate customer needs, market and regulatory changes.

These three pillars include the considerable challenges to which regions and buildings must respond: environmental, climate and health emergencies, revolution in lifestyles and technologies, etc.

## A SECTOR AT THE HEART OF THE ENERGY AND CLIMATE TRANSITIONS

2022 was unfortunately the year of all records: extreme heat, historic drought, unusually mild winter, etc... A breeding ground for climate disasters with sometimes dramatic consequences both in social and environmental terms. In Europe, the year 2022 was devastating in terms of fires, with more than 785,000 hectares going up in smoke, more than double the annual number over the 2006-2021 period <sup>1</sup>. These fires resulted in total carbon emissions for 2022 estimated at 9 megatonnes, compared to an average of 6.75 megatonnes in 2003-2021.

During construction, then when occupied, buildings consume energy and emit greenhouse gases. In France, this accounts for more than 40% of energy consumption and a quarter of greenhouse gas emissions <sup>2</sup>. If we add in issues relating to the extraction of raw materials and the production of other materials, it is undeniable that buildings are a major player in energy and climate transitions.

It is imperative, on the one hand, to limit factors directly contributing to the increase in outdoor temperatures (equipment that moves heat outdoors or the use of certain materials) and on the other hand, to limit the contribution of buildings to climate change by reducing their greenhouse gas emissions. Social, economic and environmental factors are inextricably linked due to their interrelated implications.

European and national regulations are gradually becoming stricter to reduce the sector's environmental footprint. In France, numerous laws, such as the Climate and Resilience law of 22 August 2021 and the tertiary decree resulting from the ÉLAN law, set ambitious targets. For its part, Italy is committed to "decarbonising" its economy, notably by making provision for the gradual phasing out of coal by 2025. Germany is aiming for carbon neutrality from 2045.

<sup>1</sup> EFFIS / European Forest Fire Information System / Système européen d'information sur les feux de forêt Programme Copernicus <https://www.copernicus.eu/en>

<sup>2</sup> <https://www.ecologie.gouv.fr/construction-et-performance-environnementale-du-batiment>



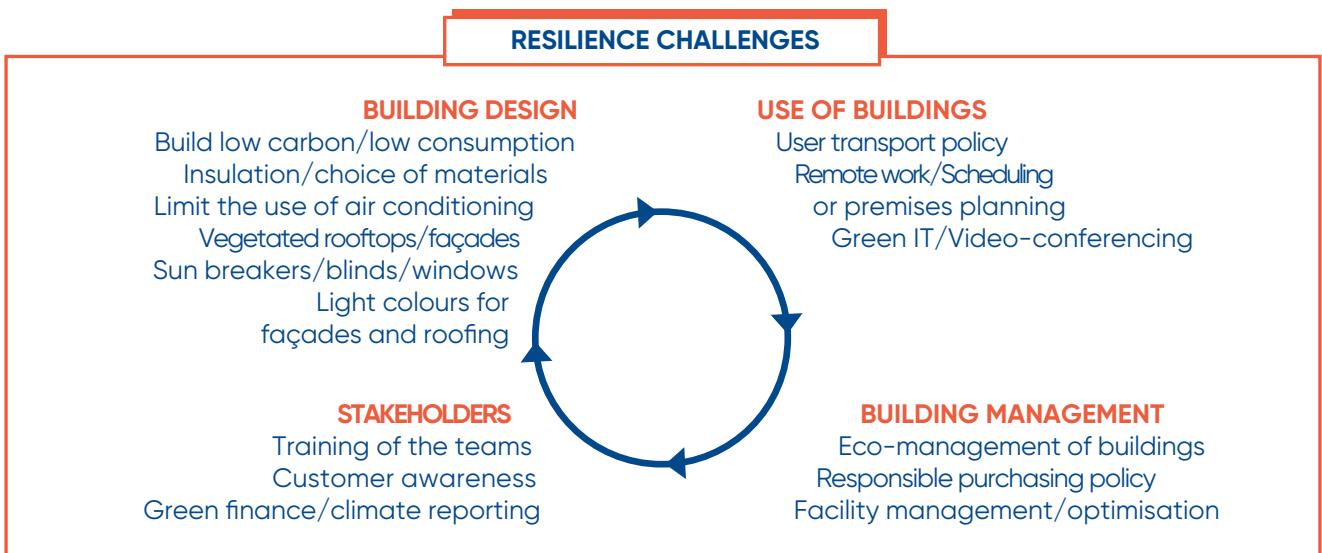
## THE BUILDINGS OF TOMORROW: RESILIENCE AND RESTRAINT

As the owner of portfolios of real estate assets built in urban areas and a player in the reconstruction of the “city within the city”, for years Covivio has been involved in translating these challenges into concrete actions to develop its portfolio. At the heart of major transitions, Covivio designs and manages its buildings as part of an urban ecosystem in terms of climate, culture and society, as well as in terms of well-being, connectivity, mobility, biodiversity, etc. Covivio aims to fight against urban sprawl and land artificialisation by reflecting on the conditions for implementing a “net zero land artificialisation” target (page 24). Works and projects are most often carried out in partnership with associations, colleagues, consultants, suppliers, local authorities, etc.

The building of tomorrow must integrate the challenges of flexibility, in terms of construction, scalability to face climate challenges (resilience to physical risks). It must also meet the needs of its users, while being energy and water efficient, in order to ensure good management of operating expenses. In this respect, Covivio has changed the range of solutions it offers: flexible office offers, remote working and “nomadic” working, coworking, co-living, new “home-style” hotel concepts, etc. For Covivio, the building of tomorrow must be flexible, service-oriented, open to the region, connected, and environmentally efficient.

The design and maintenance of Covivio’s sites meet the resilience challenges shown in the graph below, illustrated by some examples of action levers implemented.

### Optimising the resilience of buildings





◀ **L'ATELIER IN PARIS SAINT-LAZARE  
- COVIVIO HEADQUARTERS**  
*Purchased from Orange as part of a sale and lease-back operation several years ago, the building will accommodate Covivio teams in early 2024 after a complete low-carbon footprint restructuring, with the BBCA (low-carbon building) label.*

## Governance bound up with climate issues

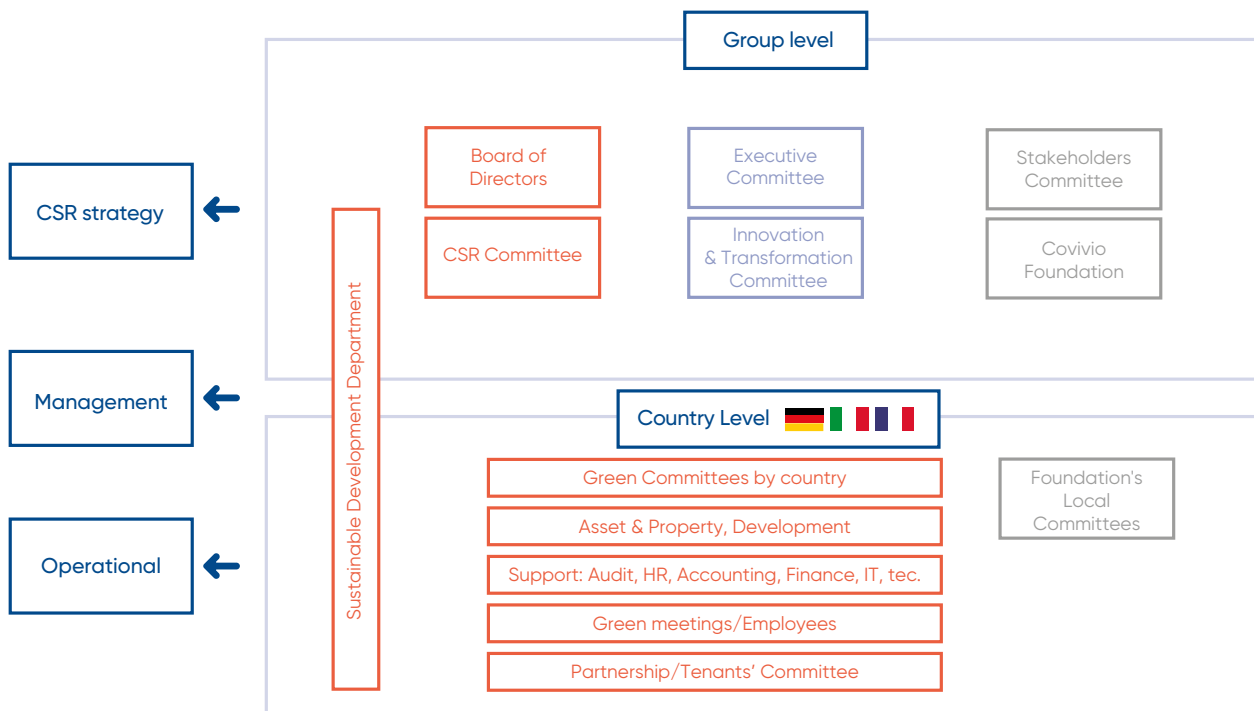
In recent years, CSR issues, and in particular those related to the climate, have become of significant importance to the financial sector, shareholders and more generally a growing number of stakeholders. These subjects are subject to appropriate governance at Covivio.

# GOVERNANCE ADAPTED TO CLIMATE CHALLENGES

Over a number of years, Covivio places CSR at the heart of its business model and development strategy; climate is of crucial importance. Covivio's climate strategy is shared with all levels of the company, within its different activities, and benefits from the particular involvement of governance bodies:

- **The Board of Directors** is regularly informed on CSR topics, in order to incorporate them into the company's strategic guidelines. The actions taken by the company in this area are presented to the CSR Committee, which reports to the Board of Directors. The latter reviews the company's performance in terms of environmental, social and societal responsibility, monitors progress with regard to the targets set, approves the main areas for improving CSR performance and compares the results and progress achieved by Group companies with their peers in Europe.
- The **Sustainable Development Department** promotes and coordinates, with the support of **General Management**, initiatives to combat climate change in the Group's activities. The Sustainable Development Department is involved in the work of the CSR Committee and is in contact with the "Europe" Executive Committee, in charge of deploying the Group's strategy. It is in close contact with the operational departments, in particular, in order to implement the Group's CSR, climate and other objectives.

## Sustainable development management at Covivio



● Covivio headquarters - Milan



# A BOARD OF DIRECTORS COMMITTED TO THE CLIMATE STRATEGY

The **Board of Directors** has taken up issues such as the expression of Covivio's Purpose, and attaches importance to climate change-related issues, their consequences on the Group's portfolio, on development projects and renovations, and on the evolution of the company's business model. The carbon trajectory update was the subject of a dedicated meeting at a Board seminar in 2021 and, in order to formalise the Board's commitment to the Group's sustainable development strategy, a CSR Committee was created in July 2021. Its main missions: validation of the CSR strategy and monitoring of its implementation, forward-looking role on major social and environmental trends, provision of expertise to the Board and the other Board Committees. To this end, the CSR Committee interacts with the Audit Committee to review ESG risks and with the Appointments and Remunerations Committee concerning CSR criteria in executive remuneration. Since 2022, the CSR Committee has ensured that it takes into account the expectations of stakeholders and the alignment of the strategy with Covivio's Purpose.



**Alix d'Ocagne -**  
Chairwoman of the Covivio CSR Committee



The climate occupies a major place in the subjects dealt with by the CSR Committee, as it plays a central role in Covivio's strategy. In 2022, each of the CSR Committee meetings examined at least one subject related to the Group's carbon trajectory. For example, last November, part of the meeting focused on the study initiated by Covivio in order to quantify the investments necessary to achieve its greenhouse gas emissions reduction targets, thus validating the relevance of this plan in view of the Group's challenges. The CSR Committee, of course, shares its detailed work with the Board of Directors and proposes its recommendations.



## Composition of the CSR Committee

<p><b>Alix d'Ocagne</b> (53 years) Independent Director and Chairwoman of the CSR Committee Chairwoman - DOCK75</p>	<p><b>Christian Delaire</b> (55 years) Independent Director Senior Advisor - Foncière Atland</p>
<p><b>Jean-Luc Biamonti</b> (69 years) Chairman of the Board of Directors of Covivio Chairman of the Strategic Committee - Calcium Capital</p>	<p><b>Stéphanie de Kerdrel</b> (47 years) Director representing ACM Vie Deputy Chief Investment Officer of ACM</p>
<p><b>Patricia Savin</b> (56 years) Independent Director Partner - DS Avocats</p>	<p><b>Daniela Schwarzer</b> (49 years) Independent Director Executive Director - Open Society Foundations Europe and Eurasia</p>

### Risk mapping monitoring

The Board of Directors notably reviews the risk mapping, including the CSR risk mapping conducted in 2018 (page 34).

Among the CSR risks identified as part of this mapping, several include the climate issue: "Asset obsolescence/Green value/ Products anticipating societal changes", "Controlling operating expenses" and "Safety/ Environmental security/Regulatory compliance". The plans for managing these risks are specified in their respective sections of Covivio's Universal Registration Document.

9

DIRECTORS HAVE EXPERTISE IN THE ENVIRONMENT/CSR

3

CSR COMMITTEE MEETINGS IN 2022, 100% WITH A CLIMATE TOPIC ON THE AGENDA

3

BOARD OF DIRECTORS' MEETINGS WITH AT LEAST ONE CSR TOPIC ON THE AGENDA

1

ANNUAL MEETING OF THE BOARD OF DIRECTORS DEDICATED TO THE CLIMATE PARTICIPATING IN RAISING AWARENESS OF DIRECTORS ON THESE ISSUES

## MANAGERS AND EMPLOYEES INVOLVED IN THE EXECUTION OF THE STRATEGY

Meeting several times a year in one of the cities where the company has a presence, the Executive Committee, which has a European dimension, approves all major decisions or transactions concerning the monitoring of subsidiaries and equity investments, the financial policy and the asset rotation policy. It also addresses issues of organisation, tools, CSR and, in particular, issues inherent to energy, ecological and climate transitions.

At the end of the 2022 financial year, the Executive Committee had 11 members, including representatives of all Covivio "country" and "product" activities. The diversity of this Committee, in terms of gender, experience, nationalities and skills, enables it to best support the Group's strategic and climate challenges. Its members are in charge, within their area of responsibility, of implementing the Group's CSR objectives, in coordination with the Sustainable Development Department. The results achieved in this domain are now systematically incorporated into the criteria for determining the variable portion of the remuneration of Executive Committee members: targets linked to the progress of carbon targets; increasing the number of women in teams; attracting and retaining talent. These objectives are then rolled out operationally to the Group's managers, according to their operational responsibilities, and are notably communicated during individual appraisals. At the end of 2022, the Board of Directors, on the proposal of the CSR Committee, decided, with regard to the Long-Term Incentives for the Chief Executive Officer and the Deputy CEO, to increase the weighting of the CSR criteria from 20% to 30%, half of which is linked to environmental criteria (based on the portfolio certification rate).

Change management is based on a whole system of training actions coordinated by the Human Resources and Awareness Department, driven by the Sustainable Development Department. These include articles regularly shared via the Group's Intranet, or Covivio Meetings (Green or Innovation), consisting of bimonthly **awareness and information meetings on sustainable development or on topics** related to Covivio's business lines, etc. Experts (design offices, lawyers, associations, start-ups, local authorities) are invited to present innovative solutions on low-carbon construction, digital tools, biodiversity, resilience, biomimicry, or the results of studies commissioned by Covivio (energy flexibility, carbon trajectory, etc.).

With the creation of the Covivio Corporate Foundation and the establishment of a solidarity platform, employees have the opportunity to get involved in societal or environmental actions, as part of an annual solidarity day. In line with its Purpose, the Group is involved in society on two fronts, i.e. environmental protection and equal opportunities.

### Covivio 4 Climate

To go further and involve employees in a sustainable development approach, the Group launched a new cross-divisional project in 2022: Covivio 4 Climate (C4C). The first step of this project consists of carrying out a complete carbon assessment (page 20) integrating all our corporate greenhouse gas emissions. Through various stages of awareness-raising and the creation of a European team of climate ambassadors, a roadmap will be drawn up in 2023 in order to set new objectives for the Group's operational scope. This awareness-raising stage began with Climate Fresco workshops on the one hand for all members of the three Country Management Committees and on the other hand for the team of ambassadors. In addition to the workshops, communications in different formats were set up to inform the Group's employees of the project's progress and to focus on certain aspects of the carbon impact such as waste or travel.



# 1 Awareness-raising

SESSION RELATED TO SUSTAINABLE DEVELOPMENT EVERY TWO MONTHS, OPEN TO ALL EMPLOYEES

# 100%

OF THE MEMBERS OF COUNTRY MANAGEMENT COMMITTEES PARTICIPATED IN A CLIMATE FRESCO WORKSHOP



◀ **SYMBIOSIS**,  
an urban regeneration operation  
on a neighbourhood scale.  
The aim of the Symbiosis project,  
developed by Covivio in the south  
of Milan, is to transform an historic  
industrial zone into an innovative  
business district of 125,000 m<sup>2</sup>  
of offices offering an ideal  
balance between productivity,  
environmental performance and  
quality of life.

# Putting the climate at the heart of corporate strategy



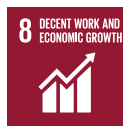
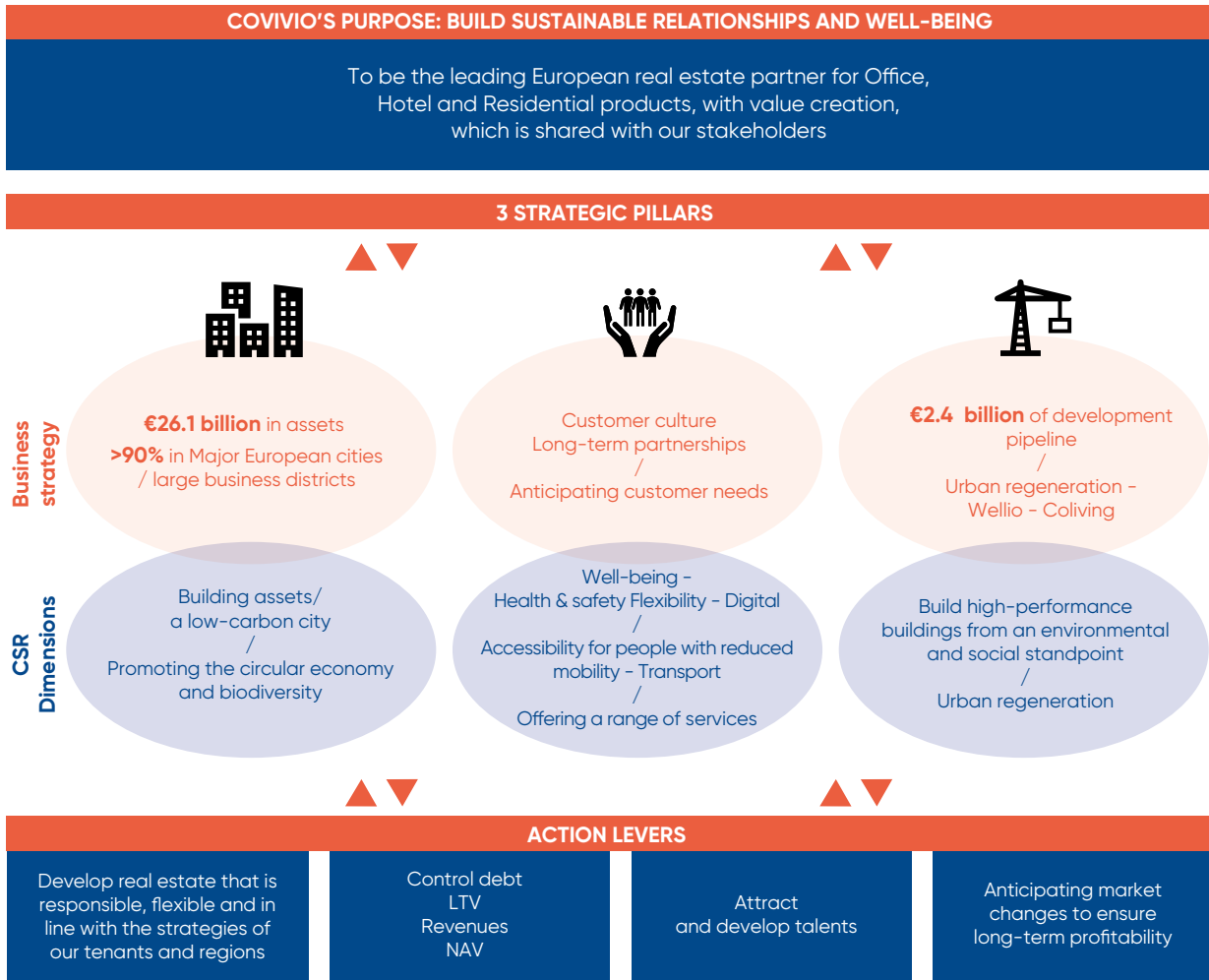


## Putting the climate at the heart of corporate strateg

A long-term vision which reconciles commercial and climate imperatives

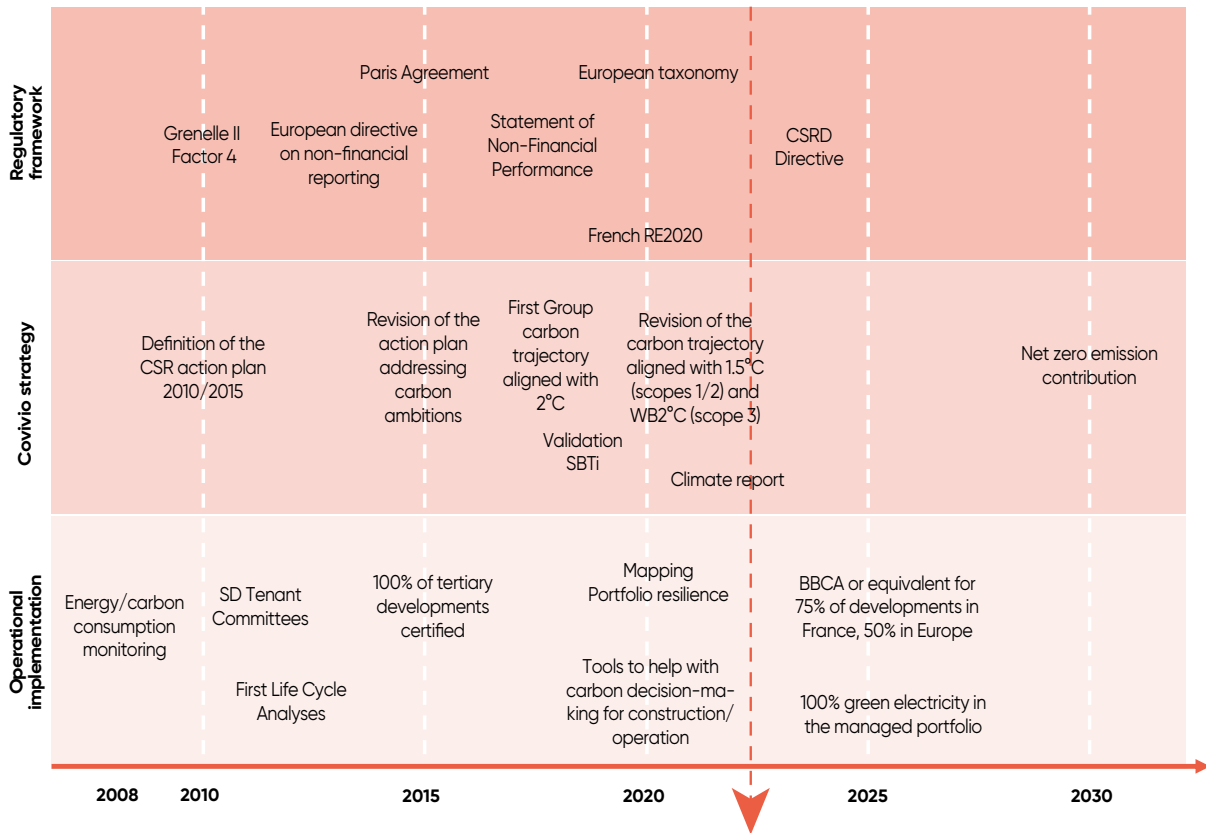
# A LONG-TERM VISION WHICH RECONCILES COMMERCIAL AND CLIMATE IMPERATIVES

Determined to transform risks into opportunities, Covivio incorporates climate issues into the heart of its business model, based on a long-term vision.





**A long-term climate strategy and actions**



**2022 HIGHLIGHTS**

First year of consumption declaration on OPERAT	Calculation of taxonomy eligibility indicators	
Study of Covivio's impact on biodiversity with the Global Biodiversity Score	CAPEX figures related to the achievement of the Group's carbon targets	Greening of 100% of bond debt and new Sustainable Bond framework
Cube2020 Trophy for CB21	Best Managed Companies label	Publication of the first Climate Report

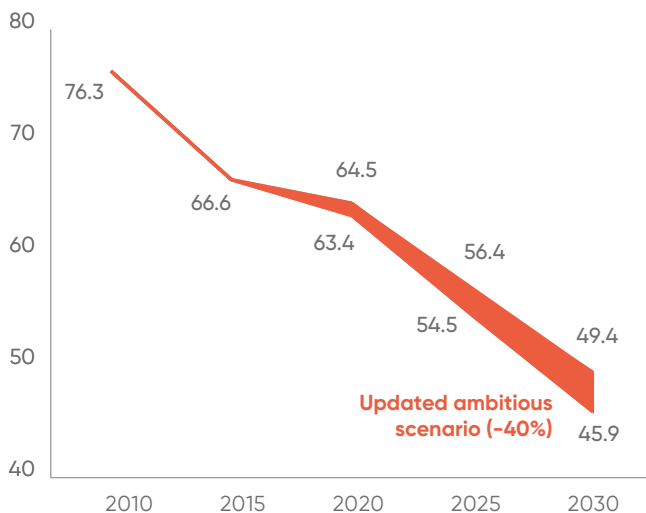


## FOCUS ON A 1.5°C TRAJECTORY

Less than three years after the publication of its carbon emissions reduction trajectory, whose compatibility with the 2°C scenario of the Paris Agreement was recognised in the summer of 2018 by the Science Based Target initiative (SBTi<sup>1</sup>), Covivio decided to raise its ambitions at the end of 2021. Covering all of Covivio's activities in Europe (offices, residential, hotels), this updated trajectory takes into account experience acquired in low-carbon construction and additional materials experiments, the circular economy and biodiversity.

Covivio's carbon trajectory update is based on a particularly ambitious approach that incorporates the entire life cycle of assets, i.e. construction, materials restructuring, and operation. Although emissions within this scope fell by 25% between 2010 and 2022, Covivio has now set itself the following targets:

- to reduce its greenhouse gas emissions by 40% between 2010 and 2030 (Scopes 1, 2 and 3) in terms of carbon intensity;
- to have a "Net Zero Carbon" contribution from 2030 and align its directly managed activities with a 1.5°C trajectory, i.e. a 63% reduction in its absolute emissions between 2015 and 2030 (Scopes 1 and 2).



**Jean-Eric Fournier -**

*Covivio Sustainable Development Director*

By being involved in initiatives such as the HQE-GBC Alliance, BBKA, SEKOYA and the low carbon expert hub, Covivio has strong expertise in this subject. This allows us to consolidate our ten-year vision and anticipate new regulations: RE2020 (which includes the carbon dimension), "net zero land artificialisation", etc. Being centrally located, Covivio's developments fight against urban sprawl. In addition, the Group is increasingly focusing on restructuring (55% of pipeline operations at the end of 2022), thus reducing the carbon footprint of its new operations, while limiting land artificialisation.



In February 2022, the SBT initiative approved the above-mentioned absolute emission reduction targets, thus confirming their alignment with a 1.5°C trajectory across scopes 1 and 2 and well-below 2°C across scope 3.

**Scopes 1 and 2 :** Covivio is now aiming for alignment with the 1.5°C scenario, covering both multi-tenant commercial buildings in operation and "corporate" premises housing Covivio's teams. To achieve Net Zero Carbon, Covivio will use offsetting mechanisms for residual emissions.

**Scope 3 :** Covivio is aiming for alignment with the "well below 2°C" scenario, i.e. a trajectory of between 1.5 and 2°C (-37.5% between 2015 and 2030 in terms of absolute emissions). The selected perimeter encompasses construction, renovation and operation of the private areas of multi-tenant office buildings as well as mono-tenant offices, residential and hotels.

<sup>1</sup> SBTi : partenariat UNGC, WWF, CDP, WRI - <https://sciencebasedtargets.org/>



# CLIMATE, PILLAR OF SUSTAINABLE FINANCE

Coming into force in 2021, the European Green Taxonomy aims to define sustainability criteria notably in risk management, to promote transparency and the long-term view and finally to direct capital flows towards sustainable investments. To meet the taxonomy's requirements, a significant contribution must be made to at least one of its six objectives, without prejudice to the other objectives. At the end of 2022, only the first two objectives, "Mitigation" and "Adaptation" to climate change, had been

defined by the texts; dedicated reporting is presented in Covivio's SNFP<sup>1</sup> 2022 (sections 3.3.4.1 and 3.7.3).

The analysis conducted in this context at the asset level has made it possible to identify rapid improvement levers for certain assets and others may also meet the conditions for alignment following the investments implemented as part of the Group's carbon trajectory.

	Regulatory definition		Operational definition*	
	Eligibility	Alignment	Eligibility	Alignment
Revenues	78.5%	21.7%	93.4%	30.6%
Capex	100%	75.1%	100%	77.6%

\* the taxonomy requires the use of gross IFRS revenues at 100%. Covivio has also established an operational definition based on net rental income Group share and EBITDA for flex office and hotel management. The calculation of the alignment rate according to this operational definition uses only eligible activities in the denominator.



## TAXONOMY ALIGNMENT CRITERIA

Almost all of Covivio's eligible revenue is generated by property acquisition and ownership (77). Three criteria can be taken into account for an asset generating revenues that can be considered as green:

1. **Belonging to the top 15%** regional ranking in terms of primary energy consumption<sup>2</sup> ;
2. **Class A energy performance diagnostic** (or B for Italy and France in view of the breakdown of the diagnostics on these countries)<sup>2</sup> ;
3. For buildings built after 31 December 2020: **NZEB -10% threshold reached + LCA** (excluding residential) and **thermal and air-tightness study** (>5000m<sup>2</sup>).

## Supporting the Group's transition by opting for green financing

A pioneer in the issuance of *green bonds* since 2016, Covivio has taken a key step in aligning its financial policy with its ESG ambitions, by finalising the transformation of its bond issues into green bonds. This allows it to hold a portfolio of 100% green Covivio bonds (€2.8 billion), i.e. 38% of its total debt. On this occasion, Covivio reviewed its Sustainable Framework, whose alignment with the Green Bond Principles and the Sustainability Linked Bond Principles (published by the International Capital Market Association) was confirmed by Moody's ESG. Assets eligible for Sustainable Bonds must:

1. have a minimum certification of HQE Excellent, BREEAM Excellent (Very good for assets already delivered), LEED Gold or DGNB Gold;
2. be located less than 500 meters from public transport
3. have an annex or green clauses on leases in France and new leases in Italy and Germany.

In particular, Moody's ESG awarded the best score (Advanced level) in its Second Party Opinion to the "key performance indicators" and "carbon footprint reduction targets" pillars.

<sup>1</sup> SNFP: Statement of Non-Financial Performance  
<sup>2</sup> A BMS (Building Management System) is required for large buildings



**Paul Arkwright -**  
Chief Financial Officer - Covivio



In line with its strategy, Covivio increasingly incorporates criteria related to the environmental performance of its buildings in its financing. By greening all of its bond debt in 2022 and signing €250 million in ESG credit lines, Covivio is committed to meeting the commitments presented in this report to its investors and partners.



# A COLLECTIVE REQUIREMENT SHARED WITH THE LOW-CARBON ECOSYSTEM

**Covivio actively contributes to public building policy through its strong commitment to working groups and trade associations.** Covivio is a member of the EPRA sustainable development committee and the Fédération des Entreprises Immobilières (FEI, formerly FSIF) where Jean-Eric Fournier, Sustainable Development Director at Covivio, is Chairman of the CSR Committee. He is also Vice-Chairman of the HQE-GBC France Alliance, a member of the Sustainable Building Plan Office and coordinator of the Professional Sustainability Group of RICS France. Covivio's involvement in various working groups in conjunction with associations (BBCA, Orée, SBA), as part of work with the start-up incubator Immowell Lab, with scientific organisations (Politecnico di Milano), its participation in national (Palladio, IFPEB) and European (EPRA) studies, and its commitment to the Global Compact and the Paris Climate Action Charter, for example, demonstrate the Group's major contribution to sustainable real estate.



**HQE-GBC Alliance:** A member of this association for many years, Covivio has actively collaborated on several projects relating to the reduction of the carbon footprint and the circular economy. As Covivio was a pioneer in carrying out life cycle analyses (LCA), from 2010, it was naturally a signatory and partner of the HQE Performance initiative. Covivio also collaborated on the NZC Rénovation project, which aims to identify the levers specific to the renovation of buildings to reduce carbon emissions, as well as the HQE Circular Economy Performance Test aimed at assessing the impact of the actions carried out in terms of the circular economy by integrating, in particular, an LCA and materials flow analysis (MFA) <sup>1</sup>.

**Covivio's "So Pop" project, delivered in September 2022, was part of the panel of 23 buildings used for the trial, with excellent results confirming the choice of materials used for this project.**



**BBCA** <sup>2</sup>: Covivio is one of the founding members of the BBCA association, set up to promote low-carbon practices. It gave rise to the BBCA label. This label quantifies and values, using an independent certified measurement, the reduction of the building's carbon footprint over its entire life cycle (construction/operation/end-of-life/carbon storage).



**As part of the 1.5°C trajectory (see page 14), Covivio intends to rely heavily on the principles of the BBCA label to achieve its objectives in Europe. Covivio also collaborates in the European LCBI (Low Carbon Building Initiative) coordinated by BBCA and launched in 2022; in 2023, it will lead to the creation of a European standard for the construction and renovation of low-carbon buildings.**



**SEKOYA** <sup>3</sup>: Dedicated to the challenges of low-carbon construction and led by Impulse Labs in partnership with Eiffage, SEKOYA is a Carbon & Climate platform whose purpose is to identify and promote low-carbon solutions for innovative companies involved in the fight against climate change and the emergence of the city and sustainable infrastructure.

**This initiative has enabled Covivio to identify solutions to significantly reduce the carbon footprint of its development and renovation projects.**



**The low carbon expert hub** <sup>4</sup>: The purpose of the low carbon expert hub is to pool resources for analysing and selecting low-carbon solutions in the building sector. Informed by the IFPEB and Carbone 4, this initiative offers a collaborative platform enabling its participants to have access to a series of tools and targeted services as well as information by family of materials and supports building specifiers in the development of low-carbon solutions.

**This initiative has enabled Covivio to better measure the carbon impact of certain products and materials, and contributes to raising awareness of these issues among its teams**



<sup>1</sup> Test HQE Performance Economie Circulaire 2019 – Alliance HQE-GBC (hqegbc.org)

<sup>2</sup> <https://www.batimentbascarbhone.org/>

<sup>3</sup> <https://www.sekoyacarbonclimate.com/>

<sup>4</sup> <https://www.ifpeb.fr/en/the-low-carbon-expert-hub>





# LINKING CLIMATE ISSUES TO BIODIVERSITY

In December 2022, the COP15 negotiators on biodiversity, representing 193 countries, signed the post-2020 global biodiversity framework, a common roadmap for the period 2020-2030 aimed at halting and reversing the loss of biodiversity. This agreement reiterates the vital importance of taking biodiversity into account for the coming decade and underlines the key role of companies in addressing this issue. As was the case for the climate a few years ago, frameworks and tools are being developed (TNFD, SBTn, etc.) to support companies in their approach. Aware of its responsibility and that of its sector in the decline of biodiversity, Covivio has accelerated the reflection on this major subject in 2022, aiming to formalise a dedicated strategy in 2023.

Although its real estate portfolio is located mainly in urban areas, Covivio exerts direct and indirect pressure on biodiversity, given the impact of the sector on the five major causes of biodiversity erosion identified by the Convention on Biological Diversity<sup>1</sup> (including climate change).

## Covivio's biodiversity policy can be summarised in six points:

- **eco-design of developments and renovations and consideration of biodiversity upstream of projects:** ecological corridors, stakeholder expectations and choice of materials promoting the circular economy;
- **creation of green terraces** in urban environments that contribute to mitigating the urban heat island effect;
- **planting native plants**, adapted to the needs of local fauna, and limiting watering;
- **introduction of ecological green space management practices:** adjustment of the frequency of mowing, gradual elimination of the use of phytosanitary products;

- **promotion of green space functions to local users;**
- **participation in related research and innovation.**

In order to ensure that these biodiversity-related issues are taken into account, two internal charters were updated in 2019, one concerning the design of green spaces and the other their management.

On the basis of this study, Covivio aims to formalise a strategy and an action plan dedicated to biodiversity in 2023, based as much as possible on the trajectory proposed by COP15, which aims to "halt and reverse biodiversity loss by 2030". This strategy will build on the objectives and policies already in place, in particular as part of the Group's climate strategy and its commitments to net zero reallocation of natural land to urbanisation.



In order to measure its impacts on biodiversity, Covivio carries out various measurements at several levels:

- **Project/asset with the Surface Biotope Coefficient (CBS):** (page 24) and a mapping based on GRI indicators carried out on a representative panel of the Group's assets.
- **Activity with the Global Biodiversity Score (GBS<sup>2</sup>):** this scientific analysis shows that the three main drivers of Covivio's impact on biodiversity, by order of magnitude, are the supply of raw materials for construction, located upstream of the value chain; tenants' energy consumption; land conversion associated with development activities.
- **Sector with the Science Based Targets for Nature (SBTn) matrix:** for the construction and real estate sectors, pressure on biodiversity is achieved through its impact on climate change (including upstream) and on the use and change of land use.



**Simone Pinoli -**

Sustainability manager - Covivio



In line with the Group's strategy, Covivio is committed to biodiversity on its projects in Italy. The Sign thus became the first complex to receive the BiodiverCity label in Italy. At the European level, **220,000 m<sup>2</sup>** of Covivio office spaces under development or already delivered benefit from this label or equivalent. The Sign also benefits from a water recovery system for the irrigation of the green spaces of the complex as well as the operation of a double sanitary network in the buildings.



<sup>1</sup> Overexploitation of natural resources; destruction/disturbance of species and natural habitats and habitat fragmentation; pollution; introduction and spread of invasive alien species; climate change.

<sup>2</sup> Launched in 2020 by CDC Biodiversité, the GBS is a tool for assessing the biodiversity footprint of companies that focuses on the impacts of economic activities on biodiversity throughout their value chain.








# RECOGNISED PERFORMANCE

As a public company, Covivio responds each year to requests from various analysts, non-financial rating agencies and investors on ESG issues. In order to ensure real transparency vis-à-vis its stakeholders, Covivio shares a lot of information in its publications, in accordance with recognised international standards (GRI, SASB, TCFD), to improve readability. In addition, Covivio calls on two recognised agencies, S&P Global Ratings and Moody's ESG Solutions, to provide more in-depth ESG assessments. These two organisations have recognised Covivio as the Sector Leader.

Moreover, the Group has been included for several years in the ESG DJSI World and Europe, EcoVadis, Euronext Vigeo (World 120, Eurozone 120, Europe 120 and France 20), Euronext® CDP Environment France EW, Ethibel, FTSE4 Good, Gaia, and Stoxx ESG indices, and has been recognised and rated as follows: EPRA sBPR Gold Award, CDP (B), GRESB (5-Star), Vigeo-Eiris (A1+), ISS-ESG (B-) and MSCI (AAA) ratings. Issues related to global warming have become increasingly important in the work of analysts and in the questionnaires of these agencies.

## SELECTION OF COVIVIO'S CLIMATE-RELATED SCORES

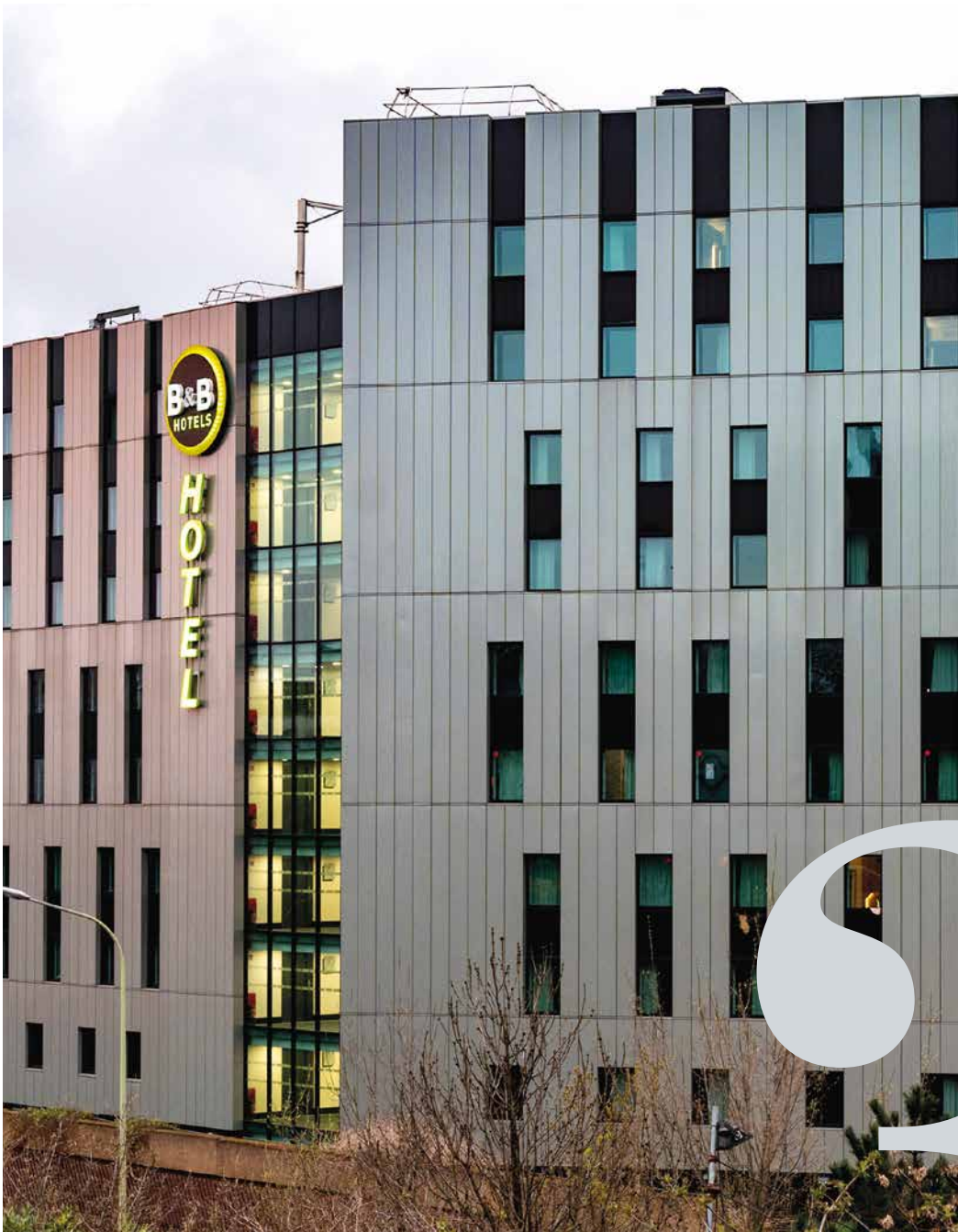
					
Specific sub-score related to a climate issue	Climate governance: A Emissions reduction Initiatives: A Targets: A	Energy/carbon transition score: 76/100 (advanced)	Environmental certification of assets: 98/100	Environmental impact of products and services: A+ GHG reduction action plans and targets: A+	Climate Strategy: 87/100 Conservation and efficient use of resources: 100/100

In 2022, for the third year in a row, Covivio was recognised by CDP as a leader in terms of supplier commitment to climate issues (*CDP Supplier Engagement Leader A-List*), making it one of the top 8% worldwide in these areas.

### Sonya Bhonsle, Global Head of Value Chains, CDP

This year's report shows that environmental action is not happening at the speed, scale and scope required to limit global temperature rises to 1.5 degrees, with many companies still not acknowledging that their impact on the environment extends far beyond their operations and that of climate change. Therefore, we need to see environmental leadership from companies right now by tackling their impacts on climate change and nature together, working with their suppliers in an integrated way that includes nature as standard, and incentivizing this engagement within their organization.



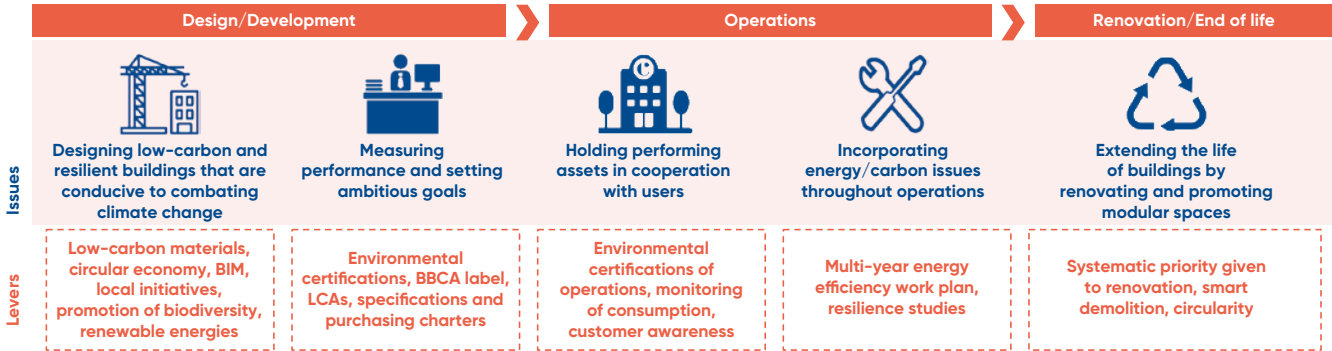


Delivered in 2013, **THE B&B HOTEL Porte des Lilas**, owned by Covivio Hotels, is one of the first hotels in France to have undergone a Life Cycle Analysis (LCA).

**Achieving  
a carbon  
performance  
compatible with  
climate issues over  
the asset's life cycle**

## A CARBON STRATEGY COVERING THE BUILDING'S ENTIRE LIFE CYCLE

As an integrated real estate operator, Covivio is a developer, owner-lessor and asset manager.



The reporting tools and procedures implemented within the Group make it possible to monitor carbon performance throughout the life of the building, from the life cycle analysis during the construction phase to the annual monitoring of greenhouse gas emissions in the operational phase. The carbon trajectory and resilience studies carried out on the portfolio provide a forward-looking view of the change in buildings' emissions over a longer period of time.

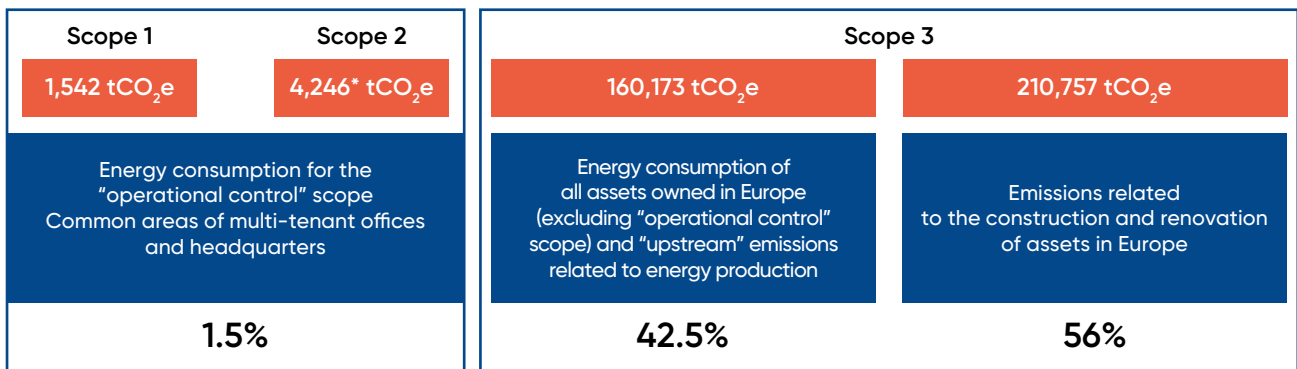
The asset acquisition and disposal policy is part of this dynamic. Recently acquired buildings are systematically reviewed to bring

them up to standard, notably through work and/or operational certification. In line with its strategy, the Group also sells mature assets with a high environmental performance, including assets that it has developed or recently renovated.

The Group's carbon trajectory covers all significant activity-related emissions, i.e. more than 85% of its total emissions (carbon assessment carried out according to the GHG Protocol).

The Group's carbon footprint is presented on page 38.

### Breakdown of the Group's greenhouse gas emissions in 2022 (significant items)



\* Including 726 tCO<sub>2</sub>e extrapolated for the Germany Offices portfolio

Having little impact compared to the emissions related to its activities, Covivio's corporate carbon footprint is measured separately. In connection with the C4C project (page 10), a European carbon assessment was carried out on the entire corporate scope: employee travel, travel policy, head office management, digital, supplier sourcing, etc., 5,750 tCO<sub>2</sub>e were emitted during the study year, i.e. an intensity of 5.5 tCO<sub>2</sub>e per employee at the European level. Purchases of goods and services account for more than 50% of global emissions, starting with

services, digital services and finally catering. Home-to-work travel represents 21% of total emissions and the energy consumption of our head offices is in third place with 14% of the carbon footprint.

# CHOOSING ECO-RESPONSIBLE MATERIALS

The choice of materials is decisive when it comes to a building's carbon impact, not only during the construction phase but also during the operational phase. Covivio therefore pays particular attention to these decisions, prioritising quality, recycled and recyclable, bio-sourced and health-friendly materials. As a developer, Covivio works with suppliers, in the working groups mentioned above or directly. This involves, in particular, the inclusion of "Low-nuisance construction site charters" in development projects, making it possible to structure objectives tailored to each project.

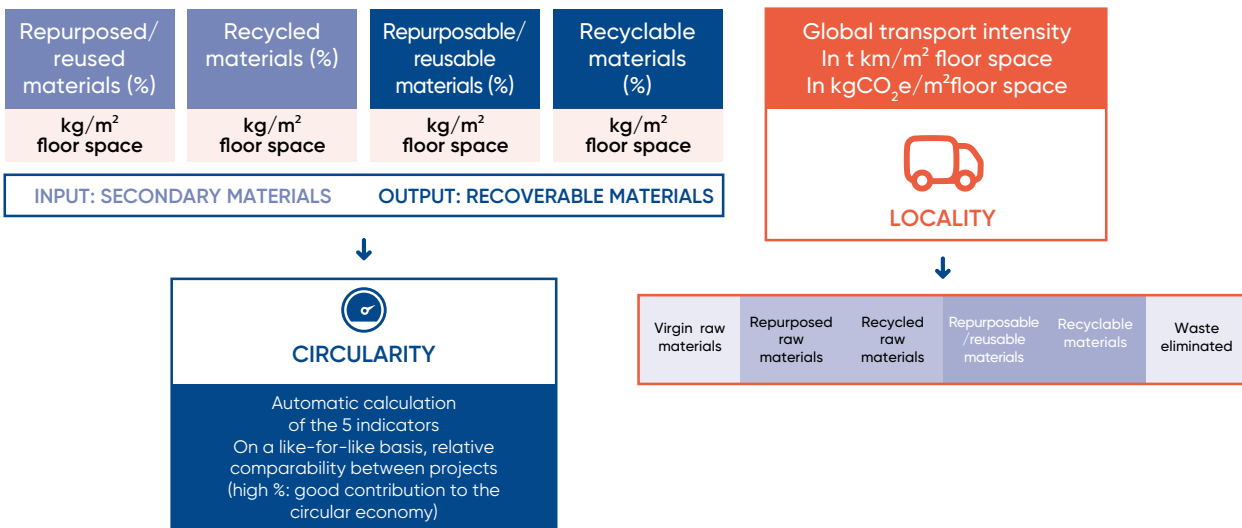
Awareness-raising initiatives are implemented within the teams, in order to incorporate circular economy issues into the company's activities and day-to-day operations. The use of sustainable and more easily recyclable materials is now widespread in the Group's practices, in line with targeted environmental certifications. All of these issues are covered by the targets of the certifications targeted by Covivio as part of the development projects. This is the case, for example, for target 3 of the HQE standard, "Construction site with a low environmental impact", relating to optimising waste management, limiting nuisances and pollution on the construction site, or limiting resource consumption on site.

## So Pop experiments with material flow analysis

In 2019 and 2020, Covivio's So Pop project took part in the HQE Circular Economy Performance Test organised by Alliance HQE-GBC to test the material flow analysis (MFA). This consists of recording the material flows involved in the building's operation at the beginning and end of its life.

MFA makes it possible to calculate indicators based on the life cycle analyses carried out (in particular, in the context of labels such as E+C-) as part of a circular economy approach. For the So Pop project, between 10% and 40% of materials for certain technical batches and the roofing come from secondary sources (recycled or reused). On output, the recovery rate reached 64%.

### MFA indicators



In order to put these commitments into practice, various projects and studies have been carried out within the Group, such as:

- A **Cradle to Cradle (C2C)**<sup>1</sup> study was carried out as part of the construction of the Motel One Porte Dorée. This led to the compilation of a C2C guide, making it possible to choose virtuous and healthy materials, offering added value for the health of the building's occupants.
- In Italy, Covivio worked with its long-standing partner, **Politecnico di Milano**, to set up a database of a wide range of sustainable construction materials. Accessible on the University's intranet, this database is updated on an ongoing basis with new sustainable materials for the attention of the technical teams.
- In Germany, as part of renovation projects carried out on the residential portfolio, glass wool or other recyclable materials are systematically used to insulate residential façades and roofing.
- In France, the So Pop project used Circocolor paints, thus promoting the recycling of acrylic paint. Using these paints makes it possible to cut this item's carbon impact by 12 and has a positive impact on VOCs and indoor air quality with emissions more than 30 times lower than that of a class A+ paint. As a result of ordering 390 cans for this project, Covivio avoided the emission of 50 tonnes of CO<sub>2</sub> and 74 tonnes of waste as well as helping to generate 35 days of professional reintegration. The experiment was repeated on the Dassault Systèmes extension project in Vélizy.
- The Stream Building project in Paris makes extensive use of wood in construction, with around 2,000m<sup>3</sup> of wood (PEFC or FSC) used, allowing the storage of approximately 1,400 tCO<sub>2</sub>e. This project mainly sources its wood from local forests (<500 km from the site), contributing to local economic development. This material also has a good load-bearing capacity/lightness ratio, a significant insulation capacity and makes it possible to shorten the time spent on site thanks to prefabrication in the workshop.

These types of works paved the way for the study conducted with CSTB on the Group's carbon trajectory and its monitoring tools.

### Noème – Bordeaux Lac :

The operation consists of the redevelopment of the former IBM site to create a 45,000 m<sup>2</sup> urban residential area divided into six blocks offering different types of housing (700 housing units): serviced retirement residences, co-living residences and family housing. The project includes more than 33,000 m<sup>2</sup> of green space (including 40% open ground) and will lead to the planting of 240 trees. Various virtuous construction methods have been selected: wooden cladding, raw earth construction and the use of low-carbon concrete for the entire neighbourhood. Emphasis has been placed on the choice of bio-sourced or geo-sourced materials (wood fibre insulation, raw earth interior partitions, timber framework for some façades, etc.) but also on those arising from the demolition of existing buildings. Lastly, to reduce the carbon weight of materials, short supply circuits have been prioritised: communal walkways in Tarn granite, communal terraces in «cale bordelaise» paving, shop fronts in Gascony sandstone, private terraces in Landes pine.



## RESPONSIBLE PURCHASING POLICY

By signing the **Covivio Responsible Purchasing Charter**<sup>2</sup>, the supplier commits to 11 fundamental principles, two of which are key to achieving its low-carbon strategy:

- Setting up systems **to limit the environmental impacts of its activity**, in particular, reducing its energy and water consumption and greenhouse gas emissions, as well as reducing and recovering its waste and preserving biodiversity;
- **Helping Covivio limit environmental impacts across its entire supply chain by promoting** local, bio-sourced, recycled and recyclable materials and also by taking into account how products are packaged and transported throughout their life cycle.

In 2022, the Group decided to rely on the expertise of an independent third party, EcoVadis, to extend the scope of the assessments to German and Italian suppliers.

# 87%

**OF COVIVIO SUPPLIERS ASSESSED BY ECOVADIS HAVE TAKEN ACTIONS TO REDUCE THEIR ENERGY CONSUMPTION AND THEIR GHG EMISSIONS AND 22% HAVE JOINED THE SBT INITIATIVE (FRENCH SCOPE)**

<sup>1</sup> Cradle to Cradle is a design principle developed by Braungart and McDonough, considering that waste must be reusable or neutral for the environment.

<sup>2</sup> <https://www.covivio.eu/en/wp-content/uploads/sites/3/2023/04/2023-Responsible-Purchasing-Charter.pdf>

## CONSTRUCTION AND REFURBISHMENT

A large part of Covivio's development pipeline is based on assets already owned. On the occasion of scheduled releases, they are refurbished to the highest international standards. They provide an opportunity to upgrade artificial surfaces and implement an ambitious asset certification policy.

### RELIANCE ON RECOGNISED STANDARDS

CSR specifications were drafted in 2020/2021, in conjunction with the German, French and Italian teams. They include various sustainable development-related issues and set targets for obtaining global certifications. **At the end of 2022, 100% of the pipeline was targeting a minimum of Excellent (BREEAM/HQE) or Gold (LEED/DGNB).** These specifications define the requirements for the use of energy labels (Effinergie+), climate labels (BBCA), biodiversity labels (BiodiverCity), connectivity labels (R2S, WiredScore) and well-being and health labels (WELL, Fitwel, OsmoZ), etc.

At the end of 2022, **44%** of tertiary assets (hotels + offices) had obtained building certification (construction or renovation), almost twice as many as in 2015. For offices held in Europe, this rate even increased by six points in one year to reach 55%.

This certification experience will make it easier to achieve the new target set in 2021 on low-carbon construction: to develop 75% of buildings with the BBCA label (new or renovation) in France and 50% in Germany and Italy, as soon as the standard has been adapted. Covivio is a member of the marketplace initiative for the creation of a pan-European low-carbon label<sup>1</sup>.

### LOW-CARBON CONSTRUCTION METHODS

In 2021, Covivio commissioned a study on the Silex<sup>2</sup> project in Lyon, in order to identify the carbon weight avoided by renovation rather than demolition/reconstruction. It emerged that renovating the building made it possible to avoid 351 tCO<sub>2</sub>e/year over the life of the building (i.e. 17 kgCO<sub>2</sub>e/m<sup>2</sup>/year and 17,550 tCO<sub>2</sub>e in total) compared to a demolition and reconstruction scenario using the

best available techniques. In addition, during the operating phase, the construction choices made from the design stage make it possible to emit up to 30 tCO<sub>2</sub>e/year less (i.e. 1 kgCO<sub>2</sub>e/m<sup>2</sup>/year), upstream included, compared to a new office building at RT2012 energy levels.

#### Innovative solutions implemented to obtain better performance in the operational phase

As part of the MEININGER Porte de Vincennes development, Covivio opted to install a heat pump to recover thermal energy contained in grey water. This heat pump covers 100% of the production of domestic hot water and makes it possible to recover the heat contained in wastewater. The introduction of this system aims to reduce energy consumption by 40% compared to a system without recovery, thus reducing CO<sub>2</sub> emissions related to the operation of the building.



<sup>1</sup> <https://www.batimentbascarbhone.org/wp-content/uploads/2022/03/2022-03-14-LCB-Initiative-Press-Release.pdf>

## BEING MINDFUL IN THE CHOICE OF SITES

Operating mainly in major European cities, Covivio participates in reconstruction of the **"city within the city"** and thus avoids contributing to urban sprawl. A sparing land-use strategy corresponds to a desire to limit soil sealing and not construct new buildings on land used to grow crops. Upstream of projects, Covivio combines this analysis with those relating, in particular, to accessibility and health and environmental safety.



**Friederike Hoberg** -

Head of German Offices - Covivio



“

The development project in Berlin (Südkreuz) focuses on reversibility and was designed as an innovative and sustainable ecosystem, focusing on warm and bright spaces as well as large green terraces.

With ambitious environmental objectives, this 14,150 m<sup>2</sup> operation will benefit from up to 80% of recycled and CCS-certified concrete. It will use geothermal energy for heating and air conditioning via heat pumps and radiant ceilings operating at low temperatures which are more energy-efficient. The building project will have 1,200 m<sup>2</sup> of photovoltaic panels with a capacity of 100 kWp (i.e. 125 MWh/year).

The project also provides for the development of a fully planted and permeable terrace thanks to retention and drainage trenches and green spaces designed with an ecologist/ornithologist. It will benefit from good accessibility to public transport and 50% of parking spaces will be equipped with charging stations for electric vehicles.

The project is aiming for DGNB Platinum, KfW Efficiency Building 40 + Renewable energy and Wiredscore Gold certifications and labels.

”

**At the end of 2022, 55% of Covivio's development operations consisted of urban regeneration operations (restructuring of existing assets in major European cities).**

## FROM "NET ZERO ARTIFICIALISATION" TO POSITIVE BIODIVERSITY

Covivio incorporates "net zero artificialisation" issues by taking care not to increase its land footprint, or by reducing it, during developments and renovations, thus enhancing biodiversity. In 2021, Covivio strengthened its ambitions by committing to the ACT4Nature International initiative<sup>1</sup> and has thus defined 12 measurable objectives, including that of achieving a net gain in biodiversity on 100% of operations by the end of 2025.

In order to measure this notion of biodiversity gain both for development projects and buildings in operation, Covivio has chosen to develop its own indicator, in partnership with the research department ARP-Astrance. This is capable of integrating the green spaces and their social values on the sites in operation. The CBS (Surface Biotope coefficient) value makes it possible to compare the sites in their current state with development scenarios, or to compare, for the same site, data from one year to another, in order to select the most suitable developments. Out of four projects delivered or underway in 2022 and analysed in France, i.e. a total surface area of 18,569 m<sup>2</sup>, exclusively in dense urban areas, the CBS is improved 2.6x versus the initial position.

### Gobelins: an exemplary renovation in terms of urban biodiversity

The Gobelins project (Paris 5<sup>th</sup>) made it possible to plant approximately 370 m<sup>2</sup>, divided between the roof terrace and the former courtyard which has been transformed into a garden, comprising 63 m<sup>2</sup> of green space on open ground. In addition to the quantitative aspect, the project sought to develop the quality of green spaces with a wealth of flora and fauna (66 species counted upon delivery) and to increase urban connectivity for birds and pollinators. The study, which was carried out by an ecologist, highlighted the advantages of the green roof: rainwater retention and fight against urban runoff, thermal and sound insulation, aesthetic contribution, improvement of urban air quality, extension of the useful life of the roof and finally contribution to fighting the urban heat island effect (difference of 2 to 5 degrees measured on the site).

<sup>1</sup> <https://www.act4nature.com/wp-content/uploads/2021/11/COVIVIO-VA.pdf>



## PROMOTING THE USE OF RENEWABLE ENERGIES

Because it is a strong lever for reducing the carbon footprint related to the energy consumption of buildings, the use of renewable energies is systematically studied for development projects. All-electric, as well as district heating and cooling, are preferred, as several sites owned by Covivio are already equipped with solar thermal panels (domestic hot water) or photovoltaic panels (renewable energy production). The use of geothermal energy is also widespread, as well as innovative devices, such as Massileo® (thermal energy from the sea) for Euromed in Marseille.

Renovations are also an opportunity to implement new solutions, such as the Garibaldi Towers in Milan, which were equipped, in 2010, with 804 m<sup>2</sup> of solar panels (58 MWh produced in 2022). Encouraged by aggressive regulations on the issue (60% of a building's energy needs must be provided by renewable sources), developments recently delivered, and under development, in Milan, also include photovoltaic equipment, such as buildings in the Symbiosis district (68 MWh produced in 2022 vs. 25 MWh in 2021). All-electric or electric/district heating/cooling have also become the norm, gradually reducing the share of fossil fuels.

## ESTIMATING A PROJECT'S CARBON PERFORMANCE

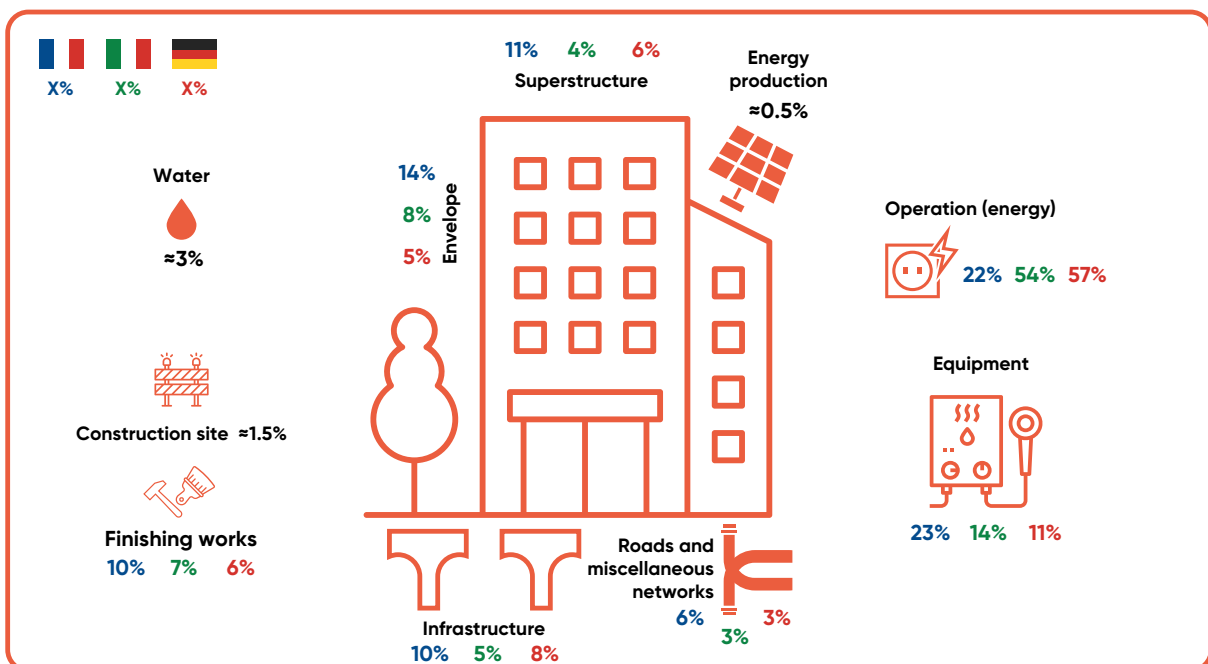
Since 2010, Covivio has performed Life Cycle Analyses (LCA) in order to quantify the environmental impacts of operations at each stage of their life cycle, across six modules (materials, energy, water, travel, construction site and waste).

- **2013:** 1<sup>st</sup> LCA for a building renovation (Steel - Paris 16<sup>th</sup>).
- **2014:** 1<sup>st</sup> LCA on a hotel (B&B Porte des Lilas).
- **2015:** creation of the BBCA label, as a result, in particular, of LCA data compiled in the HQE Performance programme database.
- **2020:** Covivio mandates CSTB to draw up LCA specifications for its three activities in Europe. This document is compatible with the EN15603 standard and aims to facilitate the comparability of LCA results on its various projects, and to monitor the 2030 carbon trajectory.

- **2021:** Specifications test for the MEININGER Porte de Vincennes hotel and the Unione office building in Milan. The first results made it possible to make the method more reliable and to adjust it to national specificities. Main obstacle identified: difficulty in obtaining reliable quantitative data due to a still-limited number of product environmental declaration sheets.
- **2022:** Specifications test for a residential project (Berlin Biesdorf).
- **2023:** LCBI (Low Carbon Building Initiative) label experiment with Symbiosis D in Italy.

## The LCAs carried out to date within the Group reveal the following figures in relation to the carbon impact of buildings:

### BREAKDOWN OF A NEW BUILDING'S CARBON WEIGHT



## INVOLVING ALL PROJECT STAKEHOLDERS

As a developer, **Covivio builds stakeholder commitment on construction sites** through a strong partnership relationship and detailed procedures and documents. For all certified projects, four key documents qualify the technical and environmental performance: **the environmental notification, the operation management system, the building's environmental quality assessment and the low- nuisance construction site charter**. The latter commits all those involved in the project and details the environmental principles to be followed as well as specific targets tailored to each project. The charter explains individual roles and sets specific targets: for example, aim for 85% recovery of site waste, prioritise reused, recycled and recyclable materials and use 80% PEFC or FSC certified wood.

### Covivio, a player in urban regeneration: Scalo di Porta Romana

By winning, alongside Coima SGR and Prada, the call for tender for the acquisition of an industrial park surrounding the former Porta Romana station in Milan, Covivio is participating in a vast regeneration operation. The discussions initiated with the consortium led to the development of a strategy based on four sustainability pillars, which underpin the project's development from design to operation:

- Decarbonisation: developing a low-emission and energyefficient neighbourhood;
- Circularity: ensuring the recovery and re-use of resources;
- Climate change adaptation: climate resilience of the neighbourhood, enabling adaptation to, and mitigation of, the climate change effects experienced;
- Health, well-being and resilience of the community: inclusive neighbourhood promoting well-being, collective participation and social openness.

Each pillar is broken down into an action plan and has specific monitoring indicators.



### INNOVATION :

#### Innovation for sustainable construction: BIM

BIM builds a comprehensive and consistent 3D building database and maintains it throughout the lifetime of a real estate project: design, completion, operation, and deconstruction. BIM also improves the operational management of the building by facilitating the design of space and access to facilities. Within the context of the circular economy, BIM is also a tool that makes it possible to organise the traceability of materials and equipment with a view to their reuse. At the end of 2022, **100%** (by surface area) of new development projects in France, Germany and Italy were carried out with the help of BIM, i.e. five projects amounting to more than 170,000 m<sup>2</sup>. In 2020/2021, with the help of an external consultant and in conjunction with the various technical, asset and property management teams, a European BIM specification was drawn up in order to better characterise Covivio's needs in this area and the profile of the BIM environments that will be created as part of future projects.

## BUILDINGS IN OPERATION

Particular attention is paid to the carbon impact of buildings in operation. This is addressed right from the outset during the project's design phase, then during the trade-offs made during construction and, of course, once management has commenced.

The HQE Performance test breaks down greenhouse gas emissions for new buildings in France, i.e. 60% for construction and 40% for operation, with variants depending on the type of asset. In Germany and Italy, this percentage is reversed due to a more carbon-intensive national energy mix, according to the first express LCA carried out on current development projects.

### WIDENING THE USE OF ECO-MANAGEMENT

**Optimising a building's** environmental performance aims to reduce its energy, carbon, water and waste footprint while improving the comfort and well-being of its occupants. Energy management is an important lever and takes several forms, starting with the implementation of regular and reliable monitoring and the choice of the energy source, especially if the energy is green. All of the buildings developed by Covivio are equipped with building management systems (BMS), a facility management tool. Covivio has also set up a **monitoring platform** for its directly managed

buildings in France (around 20) and conducted tests in Italy, with two buildings equipped in 2021/2022. These platforms collect real-time consumption data, which are then analysed by an energy manager. Due to regulations, a specific solution is being studied in Germany to automate energy consumption reporting.

Since 2010, Covivio has set targets for reducing the greenhouse gas emissions of its operating assets, based on the environmental reporting produced each year for its various portfolios.

Portfolio	Target	Timeframe	Achievement at 31/12/2022
France Offices	-70% i.e. 7.9 kgCO <sub>2</sub> e/m <sup>2</sup> /year	2010/2030	9.9 kgCO <sub>2</sub> e/m <sup>2</sup> -60% compared to 2010
Italy Offices (Operational control)	-68% i.e. 13.4 kgCO <sub>2</sub> e/m <sup>2</sup> /year	2015/2030	7.3 kgCO <sub>2</sub> e/m <sup>2</sup> -82% compared to 2015 (26.3 on the total scope)
German Residential (representative panel)	-15% i.e. 29 kgCO <sub>2</sub> e/m <sup>2</sup> /year	2017/2025	28.8 kgCO <sub>2</sub> e/m <sup>2</sup> -16% compared to 2017
Hotels in Europe	-70% i.e. 14.6 kgCO <sub>2</sub> e/m <sup>2</sup> /year	2010/2030	25 kgCO <sub>2</sub> e/m <sup>2</sup> -49% compared to 2010

Based on the first reporting on the Germany Offices portfolio (intensity of 8.9 kgCO<sub>2</sub>e/m<sup>2</sup> within the operational scope) as well as the studies carried out as part of the carbon trajectory, an energy consumption reduction target may also be set.

#### Waste management



Although not significant in terms of the Group's climate impacts, water and waste management during the operating phase is reported annually. Covivio ensures the widespread use of selective collection in buildings and has also set itself the target of reducing its waste production by 15% between 2019 and 2030 in its directly managed portfolio

#### Water management

The water consumed by the assets in operation and during development operations comes exclusively from municipal water networks. According to the Beta Aqueduct map on the level of water stress in the regions (WRI), 25% and 15.9%, respectively, of the water reporting scope is located in high and very high risk areas, i.e. 29.2% and 25.9% of reported water consumption. Covivio does not draw directly from groundwater and has set itself ambitious targets for reducing consumption. On the France Offices portfolio, water intensity was down 38% between 2008 and 2022, to reach 0.26m<sup>3</sup>/m<sup>2</sup>/year. At Group level, the water intensity is 1.14m<sup>3</sup>/m<sup>2</sup>/year.

## BEING A PLAYER IN ENERGY EFFICIENCY

In response to the energy and climate crisis of autumn 2022, the French government requires energy consumption to be reduced by 10% by 2024. In addition to the actions already undertaken, Covivio has sent tenants of the tertiary buildings that it manages directly, a letter on the sobriety plan, extending the awareness-raising process carried out under the tertiary decree.

### Three areas for optimisation have been identified:

- Adaptation of set points: heating and cooling;
- Lighting: switching off the lighting of common areas, signs and façades;
- Office automation: switching off office equipment including digital screens.

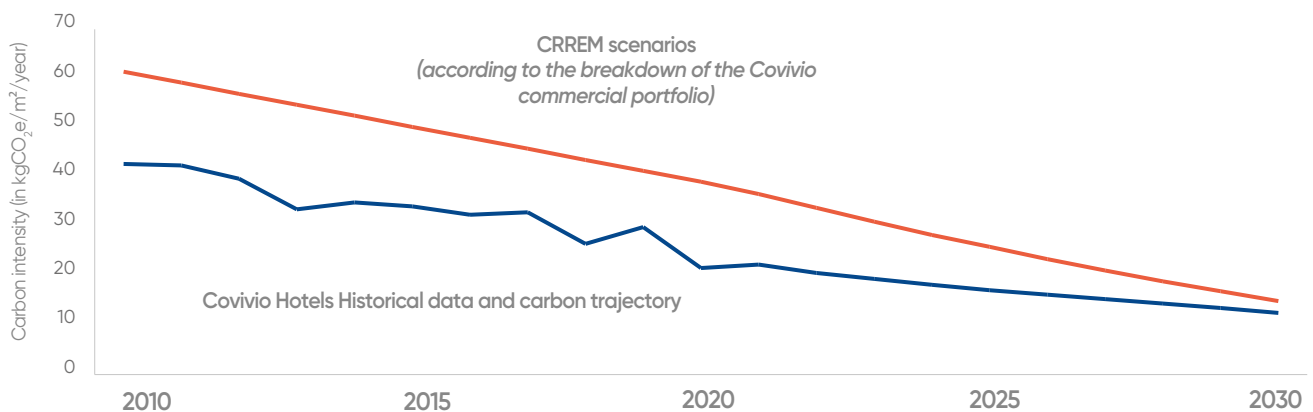
Tenants were also encouraged to share any measures that could contribute to improving the energy performance of the buildings.

## DECARBONISING THE BUILDING'S ENERGY MIX

Starting with the programming and design stages, Covivio strives to make the most sustainable choices to decarbonise the energy mix throughout the life of the building. This may involve installing photovoltaic panels on operating assets, as with the residential portfolio in Germany. 47 buildings have photovoltaic panels, enabling the production of 974 MWh of electricity in 2022 (862 Mwh in 2021). Or connecting to district heating and cooling wherever technically possible. Lastly, Covivio has set itself the target of using green electricity for 100% of its directly managed assets by 2025. At the end of 2022, green electricity already accounted for 79% (vs. 75% in 2021 and 61% in 2020) of total electricity

### Focus on the CRREM scenarios

For each portfolio, Covivio compared the CRREM scenarios to the historical GHG emissions data already published each year and to the data calculated by 2030 as part of its carbon trajectory. This made it possible to validate the consistency of the GHG emissions reduction targets for the tertiary portfolios, which are below the "tipping point" levels identified by CRREM<sup>1</sup>.



The elements proposed by CRREM concerning residential are still too recent to have the same analysis at this stage.

**974 MWh**

IN SOLAR ENERGY PRODUCED  
IN 2022 IN GERMANY

**79%**

OF GREEN ELECTRICITY IN THE  
DIRECTLY MANAGED PORTFOLIO

<sup>1</sup> The scenarios used are those published by CRREM on 11 January 2023 and are at a more ambitious level than the previous ones.

## COMMITTING TO SUSTAINABLE MOBILITY

Reducing Covivio's indirect carbon footprint and that of its customers involves, among other things, choosing sites that promote the use of public transport and soft transport for tenant customers and their employees. At the end of 2022, 97% of Covivio assets were less than 5 minutes from public transport (99.8% less than 10 minutes), beating the 95% target for 2025. In order to take this further, Covivio has clarified its mobility strategy: installation of ergonomic bicycle parking spaces that are secure and scaled to the size of the building, repair and inflation equipment, secure lockers and changing rooms and showers. This approach also includes the installation of charging points for electric vehicles across the portfolio, which can also be used by Covivio teams: Italian employees have been able to use charging stations since 2013 and they have four electric vehicles at their disposal for business travel.



**Marielle Seegmuller -**  
Director of Operations - Covivio

“

In 2022, CB21 won 1st place in the CUBE competition, Building category of the CUBE Paris La Défense league. Organised by the IFPEB and A4MT, this competition rewards buildings that reduce their energy impact according to three factors: the quality of the structure, the technical operation and the proper use made of them by the occupants. A showcase for Covivio's know-how, CB21 capitalises in particular on:

1. efficient management: HQE Operations level Excellent certification
2. an energy performance contract for more than three years, which enabled a gain of 26% from the first year;
3. innovative equipment such as energy recovery elevators installed in 2021
4. a low-carbon policy integrated into the multi-year works plan and 100% green electricity supply;

The tower was able to achieve energy savings of 23% and a reduction in CO<sub>2</sub> emissions of 17% in 2022 compared to 2021! Congratulations to all the contributors, our teams, those of the tenants and the facility manager, who took part in this challenge.

”

### MOBILITY STUDY FOR THE EUROPE OFFICES PORTFOLIO (GROUP SHARE VALUE AS OF 31/12/2022):

**94.3%**

OF ASSETS HAVE RAIL ACCESS WITHIN 1 KM (85% WITHIN 500 M)

**54.4%**

OF ASSETS HAVE ACCESS TO REGIONAL AND URBAN RAIL TRANSPORT

**171 METRES**

AVERAGE DISTANCE FROM ASSETS TO PUBLIC TRANSPORT (277 M WITHOUT TAKING BUSES INTO ACCOUNT)

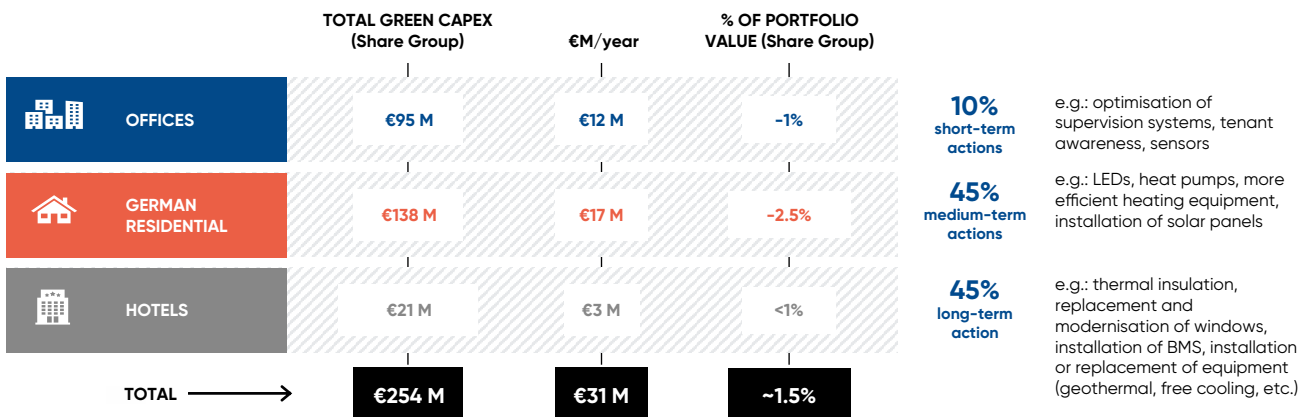
### AN AMBITIOUS WORKS POLICY TO IMPROVE ENERGY PERFORMANCE

To remain attractive (for potential tenants) and liquid (easy to sell), it is important for buildings to meet the highest standards, particularly in terms of energy and carbon performance. Installation, maintenance or replacement with more efficient equipment contributes directly to reducing the greenhouse gas emissions of assets. The strong partnership dynamic at the heart of the Group's strategy is also an important lever for achieving its objectives. In order to better characterise the risks and opportunities related to its carbon trajectory, Covivio calculated the investments necessary to achieve its GHG emissions reduction targets in 2022.

#### Methodology used

- **Review of portfolio performance** based on historical data and via interviews with operational staff, and energy audits (Hotels in Europe, Italy Offices, Germany Offices).
  - Special case of the France Offices portfolio: work concomitant with the implementation of the tertiary decree and the study carried out on the portfolio by E-nergy to verify the compliance of the assets with the objectives of the tertiary decree.
- Special case of the German Residential portfolio: work with an external service provider to set up a platform to monitor consumption and determine green Capex per asset.
- **Consolidation and extrapolation of the measures to be implemented** to achieve the carbon targets by portfolio. All assets were included in the study's scope, some benefited from in-depth energy audits, which were extrapolated to other assets.

The study thus led to the following results:



In 2022, €408 million was invested for environmental improvement of our portfolio in Europe by including developments (taxonomy definition).

#### An ambitious multi-year work plan

Given the number of residential assets held in Germany, building energy renovation programmes are spread over several years in line with the Group's targets for reducing energy consumption and greenhouse gas emissions. In 2022, the value of renovations improving the environmental performance of assets reached €13 million. In concrete terms, this work plan resulted in the replacement of energy-intensive equipment, the installation of double or even triple glazed windows, or even the insulation through façades or roofs and of course the switch to LED to light the common areas. In line with previous years, Covivio focused on replacing old boilers with modern ones, enabling a reduction in the capacity of the equipment installed by an average of 15%, thanks to better performance.

## CUSTOMER AWARENESS

At the heart of the Group's partnership strategy and its Purpose, Covivio's customers are stakeholders in its low-carbon strategy. Since 2010 Committees set up under environmental annexes have made it possible to include sustainable development in discussions with tenants and to formalise the reporting of information on building energy consumption. Various measures have been added to this strategy:

- The Memorandum of Understanding drafted in Italy in 2017 to identify all the solutions and measures deemed useful for improving the environmental performance of buildings throughout the term of the lease;
- The in-use certifications for all portfolios, making it possible to review building performance with tenants and identify areas for improvement;
- The welcome booklets, including guidelines and best practices to be adopted to optimise the environmental performance of assets. Covivio Immobilien<sup>1</sup> thus makes each newcomer aware of the proper use of heating and waste sorting in the building and also reiterates Covivio's commitments, particularly in the context of HQE Exploitation certification.

### Covivio supports its French customers in implementing the Tertiary Decree

In France, the tertiary eco-energy system has set ambitious new targets to reduce the consumption of tertiary buildings: -40% by 2030, -50% by 2040 and -60% by 2050 (or alternatively the achievement of a level of consumption in absolute value). Covivio has anticipated these measures in the context of discussions with customers, in particular within the framework of the Committees dedicated to environmental annexes. From the end of 2020, a first newsletter was sent to more than 300 tenants to inform them of the implementation of this system and the obligation to report annually on energy consumption on the OPERAT platform<sup>2</sup>. Throughout 2021, meetings were organised to discuss the subject with all office and hotel customers in France. In 2022, an audit of office buildings was carried out to ensure the conditions under which the objectives of the decree could be achieved. For hotels, the thresholds expressed in absolute value have not yet been published at the end of 2022, which pushes back an analysis identical to that carried out for offices until 2023.

## ENGAGING CUSTOMERS IN THE TRANSITION

**93%** of the 17 largest commercial tenants, accounting for over 50% of rental income, have set themselves targets for reducing greenhouse gas emissions. **59%** have targets approved by the SBT initiative (85% aiming for a 1.5°C target).



**Jean-Michel DUFFIEUX -**

Europe & Sub Saharan Africa Real Estate Director  
(MRICS) - L'Oréal

“ In 2017, L'Oréal was among the first 100 companies in the world to set targets validated by the Science Based Targets (SBT) initiative. Our overall objective is to reduce our carbon emissions by 50% between 2016 and 2030 in order to align with a 1.5°C scenario (Scopes 1, 2, 3). To achieve this, we must act on all levers and choose committed partners. Our real estate sites are an important lever. For our Milan site, we selected The Sign building, developed by Covivio, because it meets this requirement thanks to its high levels of performance both in terms of the environment and in terms of comfort and well-being for its occupants (LEED Platinum, WELL and BiodiverCity)

<sup>1</sup> [www.covivio.immo/mieterhandbuch/](http://www.covivio.immo/mieterhandbuch/)

<sup>2</sup> Observatory of Energy Performance, Renovation and Tertiary Actions

## DECONSTRUCTION

In line with its commitment to the circular economy (page 21), Covivio pays particular attention to how construction and demolition waste is managed. Their processing is governed by specific regulations concerning waste disposal, traceability and disposal in landfills. On all its construction sites, Covivio monitors the tonnage of waste and the recyclability rate during, and at the end of, the operation.

### SUMMARY OF THE CONSOLIDATED ENVIRONMENTAL REPORTING OF THREE PROJECTS DELIVERED OR UNDERWAY IN 2022 (PARIS MADRID, LEVALLOIS ALIS, SO POP, STREAMBUILDING, DASSAULT BOIS)

<b>Office space (m<sup>2</sup> floorspace)</b>					<b>61,859 m<sup>2</sup></b>
Energy consumed					3,300 MWh
Water consumed on site					15,646 m <sup>3</sup>
Waste reporting at end of construction site	Including % recycled/reused	Including % incinerated, of which energy recovery	Including % buried/sent to landfill	Including % managed by local authorities	TOTAL
Non-hazardous waste	76.2%	16.6%	6.7%	0.0%	5,006 tonnes
Green waste	-	-	-	-	0 tonne
Steel	99.5%	0.3%	-	-	65 tonnes
Inert waste	97.2%	1.5%	1.3%	-	3,942 tonnes
Wood waste	60.4%	39.3%	-	-	1,409 tonnes
Cardboard waste	98.5%	-	-	-	271 tonnes
<b>TOTAL NON-HAZARDOUS WASTE</b>	<b>82.6%</b>	<b>13.5%</b>	<b>3.6%</b>	<b>0.0%</b>	<b>10,724 TONNES</b>
Hazardous waste					1.6 tonnes

According to the initial results obtained on the reporting of Italian construction sites, the recycling and recovery rate is more than 95% on the assets delivered in 2022 and a target of at least 75% is set for developments in progress.

Upstream of any demolition work, Covivio has an audit carried out to identify the potential for reuse and recycling of materials and equipment. For example, in the case of So Pop in Saint-Ouen, many items of equipment (lighting, armchairs, etc.) were sold on a dedicated online platform (Cycle Up), in order to give them a second lease of life. This solution makes it possible to avoid throwing away equipment that is still in good condition, and to boost employment as well as local organisations (associations, start-ups, local authorities). For its various projects, Covivio promotes the use of reused materials (false floors on So Pop, for example) or reused furniture (on Stream Building).



### INNOVATION : Demolition in the age of BIM and Blockchain

In the future, demolition will be facilitated by the use of tools such as BIM which can offer traceability and an inventory of materials and construction methods from the building's construction and during its operation. Covivio is a pioneer in this field, with several notable achievements in Europe.

Following the departure of Citroën from the Saint-Ouen site, Covivio organised the demolition of this 20,000 m<sup>2</sup> building via a blockchain-based works contract, simplifying and securing the digital signature procedure.







#### RESIDENTIAL IN GERMANY

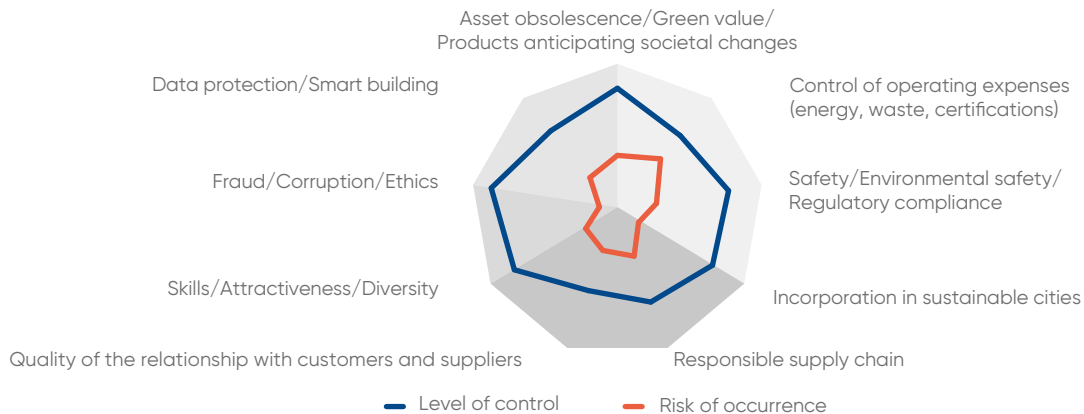
*Located in different sectors and countries, the Group has a business model that has shown its resilience in times of crisis. The buildings portfolio has also shown its resilience to external shocks; among these, the climate risk has been identified for several years and is the subject of dedicated action plans.*

## The resilience of Covivio's business model **to deal with climate risks**

## IDENTIFYING CLIMATE RISKS TO BETTER PREVENT FUTURE RISKS

To prevent and manage risks, Covivio performs risk mapping and details the risk factors that could have a significant effect on the company's financial and non-financial position or on its results (see URD). In addition to the Group risk mapping, which is regularly updated under the control of the Risk, Compliance, Audit and Internal Control Department, two other maps were created: one in 2018, on the most material CSR risks for Covivio and the other in 2020, covering risks, in particular CSR, related to purchases.

The CSR mapping was approved by the Executive Committee and submitted to the Board of Directors at its meeting of 21 November 2018. It is regularly updated and has identified nine major CSR risks shown in the graph below:



Each of these risks is described in Covivio's SNFP (Chapter 3 of the 2021 URD) by detailing related action plans as well as examples of applications and performance monitoring indicators. Given the multi-dimensionality of climate change-related issues, climate change is not listed directly but can be found in most of the risks identified.

Climate risks take different forms and can be grouped into two main categories: physical risks and transition risks. These two categories are described in the table on the following page in terms of Covivio's activities and the regulatory environment. The level of impact of each of these risks obviously depends not only on the scale of the event but also on the risk management measures mentioned in this document. The studies carried out, in particular concerning the resilience of the portfolio, make it easier to understand the occurrence of the risk and so to take appropriate corrective measures or to identify upstream locations not to be prioritised for new investment.



### CSR MAPPING IDENTIFIES:

- inherent risks, considered in absolute terms in view of Covivio's sector and activities;
- residual risks, assessed after taking into account the actions taken by Covivio to control these risks.



**Marjolaine Alquier -**

*Risk, Compliance, Audit and Internal Control Director - Covivio*

“ Aware of the potential impacts of climate change on Covivio's activities and thanks to the various analyses carried out on the portfolio to characterise these risks, those related to climate change were included in the Group's risk mapping in 2022. The potential impacts identified include: loss of attractiveness of the portfolio leading to a loss in value and the rent that it generates; increase in costs and expenses; weakening of the rental base; physical destruction of assets (limited risk). Covivio's strategy presented in this document provides concrete solutions to address this risk.

”

IDENTIFICATION OF PHYSICAL AND TRANSITION CLIMATE RISKS

	Risks	Description of risks	Potential financial impact	Covivio strategy	Monitoring indicators
Physical risks	<b>Extremes (medium term)</b>				
	Climatic phenomena: ● Storms ● Hail ● Fire ● Floods ● Drought	Physical destruction including destruction of assets Transport lockdown Problems with water and energy supply	<b>Construction:</b> ● Loss of assets ● Repair or replacement costs ● Construction delays <b>Operation:</b> ● Loss of assets ● Impairment ● Business disruption	Gradual adaptation of the portfolio Targeted resilience studies Choice of location  Trade-off	Reporting on environmental risks  Percentage of buildings certified (HQE, BREEAM, LEED, etc.)
	Temperature variations: ● Heatwave ● Cold spell	Loss of thermal comfort Risk to tenant health	<b>Construction:</b> ● Scaling of heating/cooling systems ● Additional costs <b>Operation:</b> ● Increased operating costs ● Decreased occupancy rate ● Rent reduction	Analysis of the scaling of equipment/facilities Monitoring and anticipating regulations	Energy consumption  CO <sub>2</sub> emissions
	<b>Chronic (long-term)</b>				
	Increased temperatures	Decrease in air quality Insect proliferation Destruction of green spaces	<b>Operation:</b> ● Operational costs	Biodiversity Charters BiodiverCity label Green space objective	Energy consumption  CO <sub>2</sub> emissions
Rising water levels	Flooding of assets	<b>Operation:</b> ● Loss of assets ● Business disruption	Trade-off Choice of location Targeted resilience studies	Portfolio flooding study/statistics	
Transition risks	<b>Political and legal (medium term)</b>				
	Fossil fuel energy/carbon taxation	Introduction of carbon taxation on construction, buildings with high emissions or using fossil fuels	<b>Construction:</b> ● Increase in costs <b>Operation:</b> ● Increase in costs	Low-carbon construction policy	Percentage of certified buildings
	Regulatory changes	Risk of non-compliance	<b>Operation:</b> ● Legal risks resulting in penalties and additional costs	Calculation of the CO <sub>2</sub> impact of energy-efficiency measures	Amount of penalties
	<b>Market trends (long term)</b>				
	Obsolescence portfolio	Loss of attractiveness of assets	<b>Operation:</b> ● Increased operating costs ● Drop in liquidity	Restructuring policy	Percentage of certified buildings
Economic slowdown	Decline in purchasing power	<b>Operation:</b> ● Inability to pay rent	Diversification policy	Revenues by activity/by country...	
Demand for responsible buildings	Reputational risk	<b>Operation:</b> ● Loss of attractiveness of assets	Building certification	Percentage of certified buildings	

## MAKING BUILDINGS MORE RESILIENT

### URBAN RESILIENCE

Covivio's response to **resilience issues** for buildings is twofold: on the one hand, reducing impacts and the environmental footprint, and on the other hand, adapting to climate change by virtue of eco-design to anticipate consequences. Resilience can be improved, in particular, by changing the building's conditions of

use as a result of users' involvement in the choice of premises, the implementation of a public transport policy, teleworking, the organisation of employee working hours, videoconferencing, Green IT solutions, etc.

#### Buildings in the light of climate change

In order to assess the capacity of buildings to withstand the consequences of climate change, Covivio had a resilience analysis carried out on two flagship portfolio assets, by a specialist firm in partnership with a real estate valuation expert. Through several adaptation scenarios, buildings were screened for a list of climatic variations according to the location of the site and its main characteristics. This study made it possible to make several recommendations and assess the potential impact on rental value according to the adaptation scenario adopted. For both assets, the risks of flooding and increased extreme precipitation were the most significant.

### MEASURING TO IMPROVE ANTICIPATION OF FUTURE EVENTS

Covivio has trialled the **PREDICT** tool developed by EY to better understand its portfolio's exposure to climate change risks. This study focused on all commercial assets included in its 2019 environmental reporting, with two objectives:

- to measure the percentage of assets directly affected by certain climate change risks;
- to equip and protect the Group's buildings to deal with these risks.

Based on IPCC scenarios, the model made it possible to determine that, on average, Covivio's portfolio is likely to face an average increase in temperature over the 2015-2050 period, compared to the 2005-2014 period, of **0.8°C** (SSP3-7.0 scenario, intermediate). Over the same period, **14%** (by surface area) of the assets analysed are likely to face an increase of more than 1°C. The model also addresses two major hazards, given the location of Covivio's assets: heatwaves (5 consecutive days at a temperature 5°C higher than the historical average) and intense rainfall (more than 20 mm/m<sup>2</sup>/day).

Also calculated on the basis of the IPCC SSP3-7.0 scenario, **29%** of the assets analysed could face a 20-day heatwave (13% respectively could face a 25-day heatwave), and **13%** could experience an average of 10 days of intense rainfall per year. These initial results support Covivio's analysis by confirming limited exposure to climate hazards, given the different regions where the Group's assets are located.

In addition, Covivio carried out an internal mapping study on the risk of the sea level rising above 1 metre, in order to study which assets could be affected by such a risk. The results of this mapping revealed a very low risk of **2%** (by value) of the assets analysed for all commercial portfolios and for a representative sample for the German residential portfolio.

The study carried out with MSCI provides additional insight in terms of an assessment of the impact of the exposure on value.

# 0.8°C

AVERAGE INCREASE IN TEMPERATURE  
OVER THE 2015-2050 PERIOD FOR  
THE COVIVIO PORTFOLIO

# ASSESSING THE FINANCIAL IMPACT OF CLIMATE-CHANGE RELATED RISKS

Since 2020, Covivio has commissioned MSCI to conduct an MSCI Real Estate Climate-Value-at-Risk® study on its portfolio. Initially, this study was carried out on office assets held in France, Germany and Italy. This solution is designed to calculate the financial impact of physical and transition climate risks using a series of recognised scientific models and used on a global scale. The Climate Value-at-Risk®, expressed as a percentage of the portfolio value,

represents costs discounted to a future time horizon (2050 and 2100). In 2022, Covivio decided to extend the scope of this analysis to its entire portfolio in Europe (i.e. €16.8 billion Group share at the end of December 2021). MSCI used data specific to Covivio's assets (location, surface area, building type, energy consumption and CO<sub>2</sub> emissions).

## PHYSICAL RISKS

For each asset, the model analyses the main physical risks: coastal and river flooding, extreme cold and heat, violent winds from tropical storms and cyclones, forest fires. The analysis of physical risks is carried out on the basis of a 5°C - RCP 8.5 scenario, according to which there would be no reduction in carbon emissions achieved at the global level. According to this scenario,

by 2100, physical risks would represent **0.61%** of the value of the assets analysed. The main risks identified are coastal and river flooding and extreme heat. Very few Covivio assets are exposed to physical risks (four assets exposed to the risk of coastal flooding and one to the risk of river flooding).

## TRANSITION RISKS

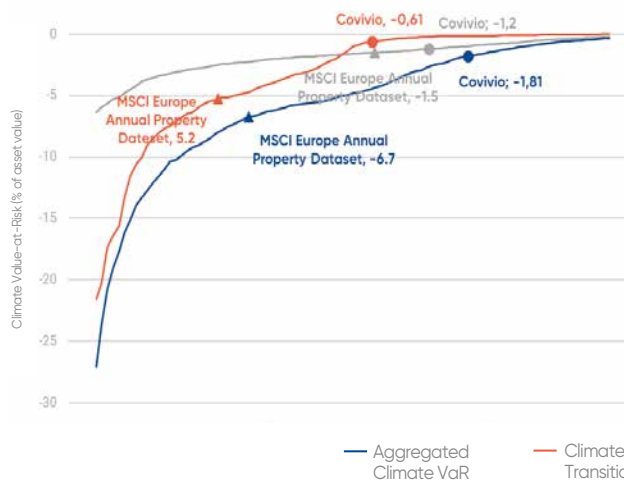
The challenge at the portfolio level is more at the level of transition risks, inherent in the need to reduce greenhouse gas emissions. The analysis of transition risks can be modelled according to different scenarios of alignment with a carbon trajectory, taking into account expected changes in terms of demographics, energy mix and carbon costs.

the portfolio's assets. This risk range **[1.2-5.9%]** by 2100 according to the selected transition scenarios expresses in monetary terms the cost associated with the risk of inaction, based on the current level of carbon intensity of the assets. The Group's carbon trajectory and related investment plans (see below) aimed at reducing the level of transition risk are not taken into account in these calculations.

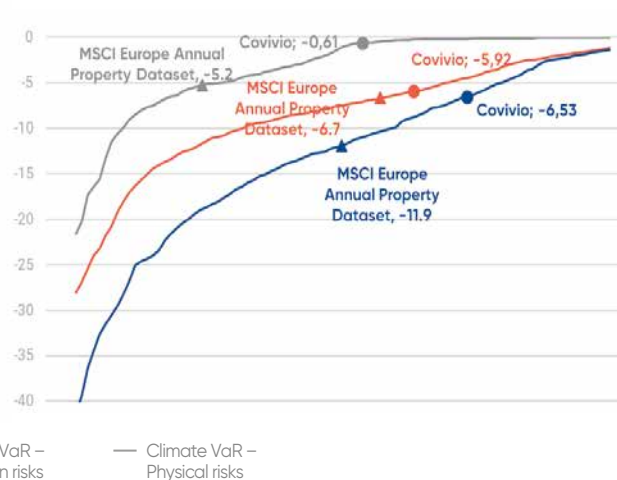
According to the REMIND Orderly model, the transition risk represents 5.92%, i.e. the cost of the efforts to be made to align with a 1.5°C trajectory. This cost takes into account the assumption of an increase in the price of carbon over time. According to the CRREM model, the transition risk represents 1.20% of the value of

The following diagram shows Covivio's results, and their positioning compared to the MSCI Europe Annual Property benchmark (composed of more than 35,000 assets with a value of €875.5 billion at the end of 2021).

Transition risks - 1.5°C CRREM scenario



Transition risks - Remind Orderly 1.5°C scenario



At present, the portfolio's current emissions correspond to potential warming of 2.5°C by 2100. The carbon action plan rolled out by Covivio must therefore continue to achieve the objectives that the Group has set itself in order to aim for a limited warming potential of 1.5°C.

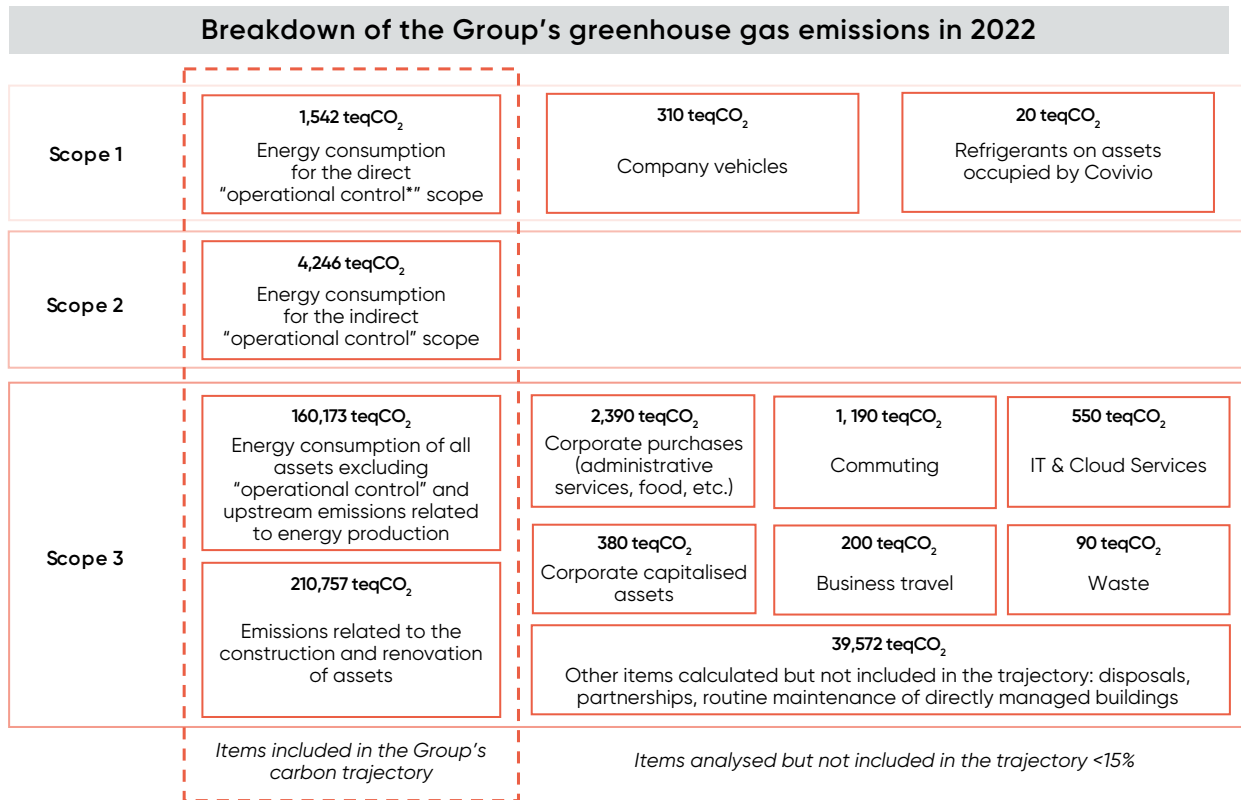
## GROUP CARBON ASSESSMENT ON ALL GHG PROTOCOL EMISSION ITEMS RELEVANT FOR COVIVIO

This carbon assessment was carried out following the GHG Protocol approach from several sources:

- 2022 Group carbon energy reporting;
- CSTB life cycle analyses and modelling of emissions related to the construction and renovation of assets (page 12);
- Corporate carbon assessment carried out with the support of a consultant.

The factors used are mainly those of the ADEME carbon database or its national equivalents in Germany and Italy.

The items included in the Group's carbon trajectory are the most significant for Covivio and the most material given its activity. However, all of the actions implemented and described in this document aim to reduce all emissions generated directly and indirectly by Covivio's activities.



\* The "operational control" scope covers the common areas of multi-tenant office buildings and buildings occupied by Covivio teams.

Emissions related to home-work travel include the impact of remote working:

- Additional emissions related to energy consumption by employees or an increase in their digital footprint: 48 tCO<sub>2</sub>e;
- Avoided emissions linked to the reduction in the number of trips: 297 tCO<sub>2</sub>e.

## MEASURABLE COMMITMENTS AND TARGETS

The main indicators and targets in relation to Covivio's climate change strategy are as follows:

### To have 100% of assets certified by 2025:

France Offices	Italy Offices	Germany Offices	German Residential	Hotels in Europe
100%	98%	46.1%	100%	87.5%

In order to continue to improve the environmental quality of its portfolio, Covivio seeks to obtain the highest levels of certification in terms of both construction and operation. Thus, 51.2% of commercial assets are HQE/LEED/BREEAM certified as Very Good or higher. In 2015, the share was only 18%.

### Reducing the portfolio's energy consumption by 25% between 2019 and 2030 (-24% at the end of 2022) <sup>1</sup>:

Portfolio	Target	Timeframe	Achievement at 31/12/2022
France Offices	Target -50% i.e. 270 kWhpe/m <sup>2</sup> /year	2010/2030	237 kWhpe/m <sup>2</sup> -56% compared to 2010
Italy Offices (Operational control)	Target -30% i.e. 137 kWhpe/m <sup>2</sup> /year	2015/2030	116 kWhpe/m <sup>2</sup> (233 on total scope) -41% compared to 2015
Germany Offices (Operational control)	First year of reporting	To be defined	127.8 kWhpe/m <sup>2</sup>
German Residential (representative panel)	Target -15% i.e. 194 kWhpe/m <sup>2</sup> /year	2017/2025	195 kWhpe/m <sup>2</sup> -14% compared to 2017
Hotels in Europe	Target -50% i.e. 308 kWhpe/m <sup>2</sup> /year	2010/2030	273 kWhpe/m <sup>2</sup> -56% compared to 2010

**Total final energy consumption of the portfolio in 2022:** 493,951,366 kWhfe, i.e. 164.4kWhfe/m<sup>2</sup>/year, of which 17% renewable energy (green electricity, green gas, photovoltaic, wood)

**Total primary energy consumption of the portfolio:** 744,878,660 kWhpe, i.e. 247.9 kWhpe/m<sup>2</sup> in the 2022 reporting scope (3,004,344 m<sup>2</sup>)

### To develop 75% of buildings with the BBCA or equivalent label in France and 50% in Germany and Italy by 2025

- 14% in surface area and 39% in budget (Group share) at the end of 2022 in France
- Covivio partner in the development of a European low-carbon label <sup>2</sup>

### To achieve 100% green electricity across the "operational control" scope by the end of 2025

- 79% at the end of 2022

At 31/12/2022

#### ENERGY INTENSITY OF THE PORTFOLIO

**248 KWHEP/M<sup>2</sup>**

OR -24% COMPARED TO 2019  
TARGET -25% BY 2030

#### CARBON INTENSITY (SCOPES 1,2,3)

**57 KGCO<sub>2</sub>/M<sup>2</sup>**

OR -24% COMPARED TO 2019  
TARGET -40% BY 2030

#### PORTFOLIO CERTIFICATION

**93.2%**

BY GROUP SHARE VALUE  
100% TARGET BY 2025

<sup>1</sup> Update of the primary energy coefficient for electricity in 2022.

<sup>2</sup> <https://www.batimentbascarbhone.org/wp-content/uploads/2022/03/2022-03-14-LCB-Initiative-Press-Release.pdf>

# LIMITED ASSURANCE REPORT FROM THE INDEPENDENT AUDITOR ON A SELECTION OF NON-FINANCIAL INFORMATION FROM THE CLIMATE REPORT

## FISCAL YEAR ENDED 31 DECEMBER 2022

To the General Management,

As requested and in our capacity as independent auditor, member of the network of one of the Statutory Auditors of your company (hereinafter "entity"), we carried out work aimed at formulating a conclusion in the form of a limited assurance on the compliance of the non-financial information selected by the entity presented in the climate report, relating to the fiscal year ended 31 December 2022, detailed in Appendix 1 (hereinafter the "Information") with the entity's procedures (hereinafter the "Guidelines").

### Conclusion in the form of a limited insurance

Based on the procedures we have implemented, as described in the "Nature and scope of work" section, and the information we have collected, we have not identified any significant anomaly that would call into question the fact that the Information has been prepared, in all material respects, in accordance with the Guidelines.

### Preparation of the Information

The absence of a generally accepted and commonly used reference framework or established practices on which to evaluate and measure the Information allows the use of different but acceptable measurement techniques that may affect comparability between entities and over time.

Consequently, the Information must be read and understood with reference to the Guidelines, the significant elements of which are presented in the climate report and available on request at the entity's head office.

### Limitations inherent in the preparation of the Information

As indicated in the climate report, the Information may be subject to uncertainty inherent in the state of scientific or economic knowledge and the quality of the external data used. Certain information is sensitive to the methodological choices, assumptions and/or estimates used to prepare it and presented in the climate report.

### Entity's responsibility

As part of this proactive approach, the entity is responsible for:

- selecting or establishing appropriate criteria for the preparation of the Information;
- preparing Information in accordance with the Guidelines established by it and which it is responsible for making available;
- putting in place the internal control that it deems necessary to prepare Information that is free from material misstatement, whether due to fraud or error.

### Independent verifier's responsibility

It is our role, based on our work, to express a conclusion in the form of a limited assurance that the Information has been prepared, in all material respects, in accordance with the Guidelines.

It is not, however, our responsibility to comment on the entire climate report for the fiscal year ended 31 December 2022 and, in particular, on the entity's compliance with the applicable legal and regulatory provisions.

As we are responsible for making an independent conclusion on the Information as prepared by management, we are not authorised to be involved in the preparation of such Information as this could compromise our independence.

### Applicable professional doctrine

We conducted the work described below in accordance with ISAE 3000 (revised) <sup>1</sup> and professional standards applicable in France.

### Independence and quality control

Our independence is defined by the provisions provided by our professional Code of ethics. In addition, we have implemented a quality control system that includes documented policies and procedures to ensure compliance with applicable laws and regulations, ethical rules and professional standards.

### Means and resources

Our work harnessed the skills of five people and took place between September 2022 and May 2023 over a total of eleven weeks.

<sup>1</sup> ISAE 3000 (revised) – Assurance engagements other than audits or reviews of historical financial information



### Nature and scope of work

We have planned and carried out our work taking into account the risk of material misstatement of the Information.

We believe that the sampling methods and sample sizes that we have used, exercising our professional judgement, enable us to formulate a conclusion of limited assurance:

- we obtained an understanding of the activity of all the consolidated entities and the description of the principal risks associated;
- we assessed the appropriateness of the Guidelines with regard to their relevance, completeness, reliability, neutrality and understandability, taking into consideration, where applicable, best practices in the sector;
- we consulted documentary sources and conducted interviews to corroborate the qualitative information presented in Appendix 1;
- we used the quantitative information presented in Appendix 1:
  - analytical procedures consisting of verifying the correct consolidation of the data collected as well as the consistency of their changes;

- detailed tests based on sampling, consisting of verifying the correct application of definitions and procedures and reconciling data with the supporting documents. This work was carried out on a selection of the following portfolios: Covivio Office Holding (Germany Offices) and France Offices, and covers between 5% and 100% of the consolidated data selected for these tests (5% of water consumption, 21% of waste production, 24% of final energy consumption, 100% of energy performance diagnostics performed);
- we obtained an understanding of internal control and risk management procedures the entity has put in place and assessed the data collection process to ensure the completeness and fairness of the Information;
- we assessed the overall consistency of the non-financial information with our knowledge of all the entities included in the scope of consolidation.

The procedures implemented as part of a limited assurance engagement are less extensive than those required for a reasonable assurance engagement performed according to professional doctrine; a higher level of assurance would have required more extensive verification work.

Paris-La Défense, 30 June 2023

**Philippe Aubain**

Partner, Sustainable Development

### Appendix 1: The most important information

<i>Quantitative Information (including key performance indicators)</i>	<i>Qualitative information (actions or results)</i>
<b>Social information</b>	
Total workforce. The percentage of employees on permanent contracts.	-
<b>Environmental information</b>	
Certification rate of assets (France Core Offices, Italy Offices, Germany Offices, German Residential, Hotels Europe). Energy intensity (kWhfe/m <sup>2</sup> /year and kWhpe/m <sup>2</sup> /year) of the real estate portfolio. Carbon intensity (kgCO <sub>2</sub> /m <sup>2</sup> /year) of the real estate portfolio (scope 1, scope 2 (market-based) and scope 3 (emissions from the energy consumption of the tenant areas of multi-tenant offices, single-tenant offices, hotels and residential in Germany and upstream emissions related to energy consumption)). Water intensity (m <sup>3</sup> /m <sup>2</sup> /year) of the portfolio.	Measures taken to exceed construction standards and combat asset obsolescence. The results of asset certification measures. Measures taken to improve the portfolio's environmental performance and reduce operating costs. The carbon trajectory developed for Covivio's activities, in line with targets between 1.5 and 2°C and validated by the Science Based Targets initiative.
<b>Societal information</b>	
Accessibility of public transport.	Measures to ensure the sustainability of the supply chain. Relationships and cooperation with stakeholders, in particular customers. Measures taken to prioritise building accessibility.



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