COVIVIO

2022 CLIMATE REPORT

New ambitions for 2030

Aligned with **TCFD** recommendations



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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 2021 Universal Registration Document published in April 2022. 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 35). Covivio's publications are available on the website: https://www.covivio.eu/en/

COVIVIO IN FIGURES



12 COUNTRIES

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

92.5%



50% women and 50% men permanent employees in europe

90.7% OF CERTIFIED ASSETS AT END-2021 ON OPERATION AND/OR CONSTRUCTION

Map of the Group's locations in Europe

(As value of Group share at the end of 2021)





EDITORIAL – FOCUS ON **"NET ZERO EMISSIONS"** FROM 2030!

The latest IPCC reports from August 2021 and February 2022 once again warn of climate change and its increasingly worrying consequences for ecosystems, agriculture and human health. The published figures are both more accurate and more alarming than the previous ones. The construction sector alone accounts for a quarter of CO_2 emissions, 38% according to the UN⁽¹⁾ if we add emissions related to the construction of buildings. Our sector must therefore undergo an unprecedented transformation to fully contribute to carbon neutrality by 2050.

This transformation must take place against an uncertain geopolitical backdrop. The war in Ukraine, in addition to the human tragedies caused, is making it increasingly difficult to source raw materials and equipment, leading to an increase in construction costs which is adversely affecting works and development budgets.

For many years now, Covivio has been committed to major transformations with the aim of designing low-carbon buildings, adapting existing portfolios, encouraging urban planning prioritising the circular economy and protecting biodiversity, etc. Following on from the Paris Climate Agreement of December 2015, we published our first carbon emissions reduction trajectory in early 2018, whose compatibility with the 2°C scenario of the Paris Agreement was recognised in the summer of 2018 by the Science Based Target initiative (SBTi²).

In 2021, capitalising on our feedback, we raised the level of our ambitions across our entire tertiary portfolio under direct management, in order to align ourselves with a 1.5°C trajectory and achieve "net zero emissions" from 2030. Our objective is also to reduce our greenhouse gas emissions by 40% between 2010 and 2030 (scopes 1, 2 and 3) across the entire scope of our activities (offices, residential, hotels) and the whole life cycle of buildings (construction, renovation, operation). Published at the end of 2021, our ambitious new objectives were validated by the SBT initiative in February 2022.

To achieve these objectives, we use all the levers at our disposal: systematic use of environmental certifications⁽³⁾, building life cycle analyses since 2010, choice of materials, renewable energies, improved building insulation, in particular through the greening of terraced roofs, etc. These actions are implemented by integrating resilience issues, in line with physical risks (heat waves, droughts, floods, etc.) and financial risks (impact on revenues and the value of the portfolio). The overview of these actions and analyses is vast. This first report summarises our commitments and initiatives. It also reports on the governance of these issues, in particular, with the creation of a CSR Committee in 2021, by our Board of Directors, which is increasingly involved in these subjects.

Covivio's transformation will continue in the coming months and years, always with a long-term vision. We are incorporating the transformations necessary to achieve the ambitious objectives we have set ourselves in terms of promoting sustainable development and, in particular, combating climate change.

> Christophe Kullmann Chief Executive Officer (CEO)

- (2) SBTi: UNGC, WWF, CDP, WRI partnership https://sciencebasedtargets.org/
- (3) 90.7% of the entire portfolio certified at the end of 2021

⁽¹⁾ https://www.unep.org/news-and-stories/press-release/building-sector-emissions-hit-record-high-low-carbon-pandemic

A BUSINESS UNDERGOING TRANSFORMATION

With a **€27 billion portfolio** (€18 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, lifestyle and technology revolutions, demographic explosions, etc.

FROM LOW-CARBON CITIES TO LOW-CARBON BUILDINGS

Climate change has direct consequences on the regions: rising sea levels, heat peaks, increasingly frequent droughts and heat waves, proliferation of storms and exceptional rainfall, etc. Cities and buildings must become more resilient, that is, able to offer relevant responses to these situations. What solutions should be prioritised to limit the acceleration of climate change and mitigate its effects on city life? How can we support residents, particularly the most vulnerable, offering them access to water or premises where they can cool off during heat waves?

It is imperative, on the one hand, to limit factors directly contributing to the increase in outdoor temperatures (urban heat islands accentuated by the installation of 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.

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 is committed to **fighting against urban sprawl and land artificialisation** by reflecting on the conditions for implementing a "net zero artificialisation" target. So, many works and projects are most often carried out in partnership with associations, colleagues, consultants, suppliers, local authorities, etc.



A SECTOR AT THE HEART OF ENERGY AND CLIMATE TRANSITIONS

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. If we add in issues relating to the extraction of raw and other materials, it is undeniable that buildings are a major player in energy and climate transitions.

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 now aiming for carbon neutrality by 2045. In July 2021, this country experienced a period of flooding in the west of the country, with gigantic landslides. The damage was estimated at €30 billion and the human toll was heavy: 180 dead or missing. This tragedy, and many other disasters that occurred around the world during the summer of 2021 (fires, floods, significant rainfall, etc.) have increased awareness of climate-related risks and the necessary acceleration of the decarbonisation effort.

THE BUILDINGS OF TOMORROW: RESILIENCE AND RESTRAINT

The buildings of tomorrow must incorporate the challenges of flexibility, in terms of construction, scalability to face climate challenges (resilience to physical risks) as well as the needs of users, while being low on energy and water use, in particular to ensure firm control over operating expenses. In this respect, new solutions have emerged: flexible offices, teleworking and "nomadic" working, coworking, co-living, new hotel concepts such as "just like home", etc. For Covivio, the buildings of tomorrow must meet these five key requirements: **they must be flexible, service-oriented, open to the local region, connected and environmentally friendly**.

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

RESILIENCE ISSUES





COVIVIO PARIS HEADQUARTERS:

Covivio's Purpose is underpinned by a number of concrete objectives, particularly in terms of the well-being of its customers and employees. Since 2020, comfort and health criteria have taken on an even more prominent role, under the effect of the international pandemic.

Governance bound up with climate issues

TAILORED GOVERNANCE

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 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



A COMMITTED BOARD OF DIRECTORS

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. The first meeting allowed the Committee to define its main missions, i.e. 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.



Christian Delaire -

Chairman of the Covivio CSR Committee



Covivio, which has been very committed for many years to environmental and societal issues, took the decision in 2021 to set up a CSR committee, and thus increase the involvement of the Board of Directors in these issues. In terms of climate, one of the major projects for our committee is the monitoring and optimization of the Group's carbon trajectory, in compliance with the objective it has set for itself of reducing its emissions by 40% by 2030. The progress made is already significant, and we are very confident in our ability to collectively achieve this major objective.





R Christian Delaire (54) Independent Director and Chairman of the CSR Committee Senior Advisor at Foncière Atland Number of shares held: 241

Å Jean Laurent (77) Independent Director Chairman of the Board of Directors of Covivio Number of shares held: 1,883



Patricia Savin (55) Independent Director Partner at DS Avocats Number of shares held: 205



Deputy Chief Investment Officer of ACM Number of shares held: 8,114,538 (ACM)



Independent Director Number of shares held: 0

Risk mapping monitoring

The Board of Directors also reviews risk mapping, including the CSR risk mapping conducted in 2018 (page 30).

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.



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 2021 fiscal 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. Related results are now systematically included in criteria for determining the variable portion of Committee members' remuneration, i.e. progress in greening the portfolio, increasing the number of women in teams, attracting and retaining talent. These objectives are then rolled out operationally for the Group's managers, according to their operational responsibilities, and are communicated during individual interviews. In addition to the influence of these indicators on variable remuneration, the portfolio certification rate also accounts for 10% of the long-term incentive scheme for corporate officers.

Change management is based on a whole system of training actions coordinated by the Human Resources and Awareness 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 signs the University of the City of Tomorrow's charter

In the summer of 2021, the 1st University of the City of Tomorrow summit, organised by the Palladio Foundation, of which Covivio is a founding member, brought together 150 public and private decision-makers and civil society leaders around the key issue of the coming decades: low carbon cities for all. The University of the City of Tomorrow Charter, signed on this occasion, lays the foundations for a new working method based on cooperation between those who design, build and govern the city, those who talk about it and those who live in it. A major citizen consultation was launched at the end of the summit, in partnership with Make.org, to ask French people about the issue of sustainable cities. The question that was asked "How can we build more sustainable cities for all?" received proposals from more than 40,000 people.



Awareness-raising

MEETING ABOUT SUSTAINABLE DEVELOPMENT EVERY TWO MONTHS, OPEN TO ALL EMPLOYEES



SO POP:

This 32,000 m² of office space located in Saint-Ouen (near Paris) has made it possible to try a number of initiatives relating to the circular economy and reuse.

Putting the climate at the heart of corporate strategy



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.





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)⁽¹⁾, Covivio decided, at the end of 2021, to raise the level of its ambitions and is once again positioning itself as a major low-carbon transition player. 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.



Jean-Eric Fournier –

Covivio Sustainable Development Director

66

By being involved in initiatives such as the HQE-GBC Alliance, BBCA, SEKOYA and the Low-Carbon Specifiers Hub, Covivio has strong expertise in this subject, to support its ten-year vision. Internal carbon-related tools, developed in 2018/2019, make it possible to guide decisions from building design through to operation. Development is a key strategic lever and also accounts for a significant portion of the Group's emissions. By focusing on restructuring (57% of pipeline operations at the end of 2021), Covivio is thus reducing its carbon footprint, whilst limiting land artificialisation.

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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 20% between 2010 and 2020, 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).



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.



E 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.

(1) SBTi: UNGC, WWF, CDP, WRI partnership - https://sciencebasedtargets.org/



A LOW-CARBON STRATEGY BASED ON SOLID FUNDAMENTALS

KEY DATES IN COVIVIO'S CLIMATE STRATEGY



Coming into force in 2021, the European Green Taxonomy aims to redirect capital flows towards sustainable investments, to systematically integrate sustainability into risk management and to promote transparency and the long-term view. To meet the taxonomy's requirements, at least one of its six objectives must be met, without prejudice to the other objectives. At the end of 2021⁽¹⁾), only the first two objectives, climate change "Mitigation" and "Adaptation", were covered by the texts; Covivio's actions in these areas are explained in Covivio's 2021 SNFP.

86% of revenues were taxonomy-eligible according to the official definition using 2021 gross revenues. Revenues from hotel real estate under management and the flex office are not currently eligible under the two climate change annexes published. By adopting a more operational definition (i.e., Group share of net rental income and revenues generated by these activities), the taxonomy-eligible percentage of revenues would then be 94%.

100% of CAPEX are taxonomy-eligible and will thus increase the eligible share of future revenues. An alignment exercise is underway to ensure compliance with the "green" criteria set out by the taxonomy for new buildings and renovations. In accordance with its long-standing commitments, however, Covivio's entire commercial pipeline, i.e. **€1.8 billion** as of 31/12/2021, is composed of projects targeting environmental certifications (HQE, BREEAM, LEED). Since 2020, these have most often targeted at least an "Excellent" level or equivalent. **100% of OPEX** falling within the scope of the taxonomy are eligible given the nature of Covivio's activities. These expenses cover routine maintenance and restoration work that does not fall within the scope of CAPEX. Energy consumption and operating costs are not included in the taxonomy.

14% of Covivio's debt is based on "green" financing

At the end of 2021, Covivio had already issued **two Green Bonds**: the first in May 2016, with a value of €500 million (maturing in 2026 – fixed coupon of 1.875%), and the second in September 2019 (maturing in 2031 – fixed coupon of 1.125%). Covivio also issued a green private placement of €100 million in January 2021, (12 years – 0.875% coupon) based on the principles of the second Green bond framework⁽²⁾. The success of these issues rewarded Covivio's ambitious sustainable development strategy across all of its activities in Europe. They have enabled Covivio to significantly expand its circle of financiers, with great diversity at the international level.

An annual report is compiled on the portfolios to which these three transactions respectively relate. It is contained in Covivio's URD and verified by an ITP. This reporting puts into perspective the performance of the buildings concerned, particularly in terms of energy and carbon.

(1) SNFP: Statement of Non-Financial Performance

(2) Covivio-Green-Bond-Framework-2019.pdf

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⁽¹⁾: 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, 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).

Covivio's "So Pop" project 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^[2]: Covivio is one of the founding members of the BBCA association, set up to promote lowcarbon practices. It gave rise to the BBCA label. It 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 15), Covivio intends to rely heavily on the principles of the BBCA label to achieve its objectives in Europe. Covivio is also collaborating in the European initiative coordinated in conjunction with BBCA and launched in 2022 to create a European standard for the construction and renovation of low-carbon buildings. A CORPORTING A CORPORTINGA A CORPORTING A CO

SEKOYA ⁽³⁾: 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.



Low-carbon Specifiers Hub^(A): The purpose of the Low-Carbon Specifiers 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.

(1) HQE 2019 Circular Economy Performance Test - Alliance HQE-GBC (hqegbc.org)

- (2) https://www.batimentbascarbone.org/
- (3) https://www.sekoyacarboneclimat.com/
- (4) https://www.ifpeb.fr/2019/11/25/hub-de-prescripteurs-bas-carbone/

Vitae - Milan



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 V.E, part of Moody's ESG Solutions, to provide more in-depth ESG assessments. These two organisations have recognised Covivio as the **Sector Leader**. In addition, the Group has been included, for a number of 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, Gaïa (1st prize in the revenues > €500 million category), and Stoxx ESG indexes, and has been recognised and rated as follows: EPRA sBPR Gold Award, CDP (A-), GRESB (5-Star, Sector Leader), Vigeo-Eiris (A1+), ISS- ESG (B-) and MSCI (AAA). Global warming-related issues have become increasingly important in the work of analysts and in these agencies' questionnaires, such as the Resilience component of the GRESB, which Covivio has completed for the last three years.

SELECTION OF COVIVIO'S CLIMATE-RELATED SCORES



In 2021, for the second 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

Our data shows that companies currently have blinkers on when it comes to assessing their indirect impacts and engaging with suppliers to reduce them. Companies must act urgently to cascade action and manage environmental impacts throughout their supply chains to scale the level of action to secure a 1.5°C future. Many congratulations to the 400+ companies earning a place on CDP's 2021 Supplier Engagement Leaderboard. As a Supplier Engagement Leader, Covivio is a trailblazer driving the transition towards a sustainable net-zero future.





MADRID - ST LAZARE: Covivio's future headquarters

Covivios future neadquarters embodies both its heritage and the transition to which it is committed. This complex, sold by Orange as part of a sale and lease-back operation many years ago, will soon welcome Covivio's teams after complete restructuring to ensure a low carbon footprint that will enable it to obtain the BBCA (low-carbon building) label

Taking action throughout the asset's entire 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).



Having little impact in terms of its activity-related emissions, Covivio measures the carbon footprint for its corporate scope separately (**2.74 tonnes of CO₂e/year/per employee** before the health crisis) by including home-work travel (48%), fuel for company vehicles (14%), business travel (16%) and the energy consumption of buildings housing its teams and taken into account in the Group trajectory

(22%). Various measures have been implemented to reduce these emissions: transport policy, work on premises to improve efficiency, employee awareness, etc. Covivio is considering a new way of accounting for travel-related emissions to better reflect changes in working methods accelerated by the health crisis.



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, to ensure this. 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 certification targets sought by Covivio within the context of its development projects, such as target 3 of the HQE standard, "Sustainable worksite", relating to the optimisation of waste management, limitation of worksite nuisance and pollution and the limitation of 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) study⁽¹⁾ 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 undertaken on the residential portfolio, glass wool or other recyclable materials are systematically used to insulate residential façades and roofing.
- Use of **Circouleur** paints as part of the So Pop project, thus promoting the recycling of acrylic paint. Using Circoul's paints makes it possible to cut this item's carbon impact by twelve 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_2 and 7.4 tonnes of waste as well as helping to generate 35 days of professional reintegration.
- Use of wood in construction, such as the Stream Building in Paris, where approximately 2,000 m³ of wood (PEFC or FSC) were used, storing approximately 1,400 tonnes of CO₂e. The 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 m² 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 m² of green space (including 40% open ground) and will lead to the planting of 240 trees. Various virtuous construction methods have been selected: outdoor spaces/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**⁽²⁾, the supplier is committed 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.

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

⁽²⁾ https://www.covivio.eu/en/wp-content/uploads/sites/3/2021/03/2020-Responsible-Purchasing-Charter-2020.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 2021, 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. This certification experience will make it easier to achieve the new target set in 2021

LOW-CARBON CONSTRUCTION METHODS

In 2021, Covivio commissioned a study on the Silex2 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 tonnes of CO₂e/year** over the life of the building (i.e. 17 kgCO₂e/ m^2 /year and 17,550 tonnes of CO₂e in total) compared to a demolition

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 has joined a market initiative to create a pan-European low-carbon label.

At the end of 2021, 40.6% of tertiary assets had obtained building certification (construction or renovation), almost twice as many as in 2015. This rate is over 50% for offices owned in Europe. These certifications are supplemented by operational certifications, reaching overall certification rate of 90.7% group-wide at the end of 2021.

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 tonnes** of **CO₂e/year** less (i.e. $1 \text{ kgCO}_2e/m^2/\text{year}$), upstream included, compared to a new office building at RT2012 energy levels.

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.

Operation Plano in Berlin - Schöneberg

This new 14,150 m² construction to be delivered in 2023 relies on reversibility and has been designed as an innovative and sustainable ecosystem, focusing on warm and bright spaces and large green terraces:

- use of geothermal energy for heating and air conditioning via heat pumps and radiant ceilings operating at low temperatures which are, therefore, more energy-efficient;
- 1,200 m² of photovoltaic panels with a capacity of 100 kWp (i.e. 125 MWh/year);
- an entirely green and permeable terrace via retention and drainage trenches and green spaces designed with an ecologist/ornithologist;
- up to 80% recycled CSC-label concrete;
- direct access to public transport and 50% parking spaces with charging points for electric vehicles.

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

AT THE END OF 2021, **57%** OF COVIVIO'S DEVELOPMENTS WERE REFURBISHMENTS





FROM "NET ZERO ARTIFICIALISATION" TO POSITIVE BIODIVERSITY

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 (including climate change). 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 and thus defined 12 measurable objectives to extend the biodiversity strategy rolled out in 2010 and reiterated in its purpose in 2019. Thus, **by the end of 2025, Covivio is aiming for a net biodiversity gain for 100% of its operations.**

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;
- development of green terraces in urban areas helping to mitigate 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.

260,000 M² OF COVIVIO OFFICES UNDER DEVELOPMENT OR ALREADY DELIVERED BENEFIT FROM THE BIODIVERCITY® OR ECO-JARDIN LABEL.

In addition to the impact of green spaces on the well-being of occupants and the quality of the environment, their presence, in particular, that of green terraces, helps to better insulate buildings and to reduce the effects of heat islands in cities, as well as the need for heating in winter, and cooling in summer.

Gobelins: an exemplary renovation in terms of urban biodiversity

The Gobelins project (Paris 5th) made it possible to plant approximately 370 m², divided between the roof terrace and the former courtyard which has been transformed into a garden, comprising 63 m² 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).

Wellio Gobelins
 Paris



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 **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 m² of solar panels (63 MWh produced in 2021). 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 (25 MWh produced in 2021 on buildings A and B). 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: 1st LCA for a building renovation (Steel Paris 16th).
- 2014: 1st 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.
- To come: Specifications test for a residential project (Berlin Biesdorf).

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

Computerised building information modelling makes it possible to create and maintain a complete and consistent 3D database throughout the life of a real estate project: design, construction, operation, demolition. 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 2021, **100%** (by surface area) of new development projects in France, Germany and Italy were carried out with the help of BIM, i.e. seven projects amounting to more than 180,000 m². 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 also has a **monitoring platform** for its directly managed buildings in France (around 20) and has begun to roll this platform out in Italy, on two buildings in 2021, with another five due in 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 31/12/2021
	- 70%		11.1 kgeqCO₂/m²
France Offices	i.e. 7.9 kgCO ₂ e/m²/year	2010/2030	-55.6% compared to 2010
Italy Offices	- 68%		9.3kgeqCO ₂ /m ²
(Operational control)	i.e. 13.4 kgCO ₂ e/m²/year	2015/2030	-77% compared to 2015
German Residential	- 15%		29.6 kgeqCO₂/m²
(representative panel)	i.e. 29 kgCO ₂ e/m²/year	2017/2025	-13.5% compared to 2017
	- 70%		20.5 kgeqCO ₂ /m ²
Hotels Europe	i.e. 14.6 kgCO2 ₂ e/m²/year	2010/2030	-58.2% compared to 2010

Water and 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 direct management portfolio.

The water consumed by the assets in operation and during development operations comes exclusively from municipal water networks. Some of Covivio's assets are located in water-stressed areas. According to the Beta Aqueduct map on the level of water stress in the regions (WRI), 19% and 8.7%, respectively, of the water reporting scope is located in high and very high risk areas, i.e. 27.7% and 10.6% 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 47% between 2008 and 2021, to reach 0.22m³/m²/year.

Silex2 - Lyon



DECARBONISING THE BUILDING'S ENERGY MIX

Starting with the design stage, 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 **862 MWh of electricity 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 2021, green electricity ALREADY ACCOUNTED FOR 74% (vs. 61% at end-2020) of total electricity

USING ENERGY PERFORMANCE CONTRACTS (EPC)

By signing contracts for energy consumption reduction targets with a specialised operator, EPCs are powerful **levers for improving the energy efficiency of buildings**, and can mobilise the entire chain of players. In France, the first two EPCs have been signed for two flagship assets (Carré Suffren and CB21), and are helping to provide innovative and practical solutions that are significantly improving the energy and carbon performance of these assets.

26% REDUCTION IN CONSUMPTION WITHIN THE FIRST YEAR OF THE EPC BEING INTRODUCED FOR CB21

AN AMBITIOUS WORKS POLICY TO IMPROVE ENERGY PERFORMANCE

For each portfolio, **Covivio's multi-year works plan** puts energy performance, and more generally, environmental performance, at the heart of the measures carried out. Installation, maintenance or replacement with more efficient equipment contributes directly to reducing the greenhouse gas emissions of assets. Among the levers identified as being the most relevant for commercial buildings, boiler replacement can result in an 8% energy gain for under €10/m² of CAPEX invested, switching to all LED can result in an 8% gain for an expenditure of around $€5/m^2$ and introducing remote metering can lead to a 9% improvement in energy performance. Covivio has, therefore, chosen to systematically replace old equipment with more energy-efficient equipment and to gradually switch to LED for all of its directly managed assets.

Given the volume 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 2021, renovations improving the environmental performance of assets amounted to €12 million, resulting in the replacement of energy-intensive equipment, the installation of double or triple-glazed windows, or façade or roof insulation and, of course, switching to LEDs in common areas. In line with previous years, Covivio replaced 258 boilers in its German residential portfolio, making it possible to reduce the capacity of the equipment installed by an average of 15% thanks to better performance. Identified as a priority lever in 2019, 370 residential buildings were connected to district heating in 2020/2021 (total cost €2.8 million) and a heat and energy production station was built, making it possible to supply 25 buildings.

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_2 emissions related to the operation of the building.

STREAM



RAISING 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 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;
- More recently, the implementation of the Tertiary decree in France, resulted in a newsletter being circulated to more than 300 tenants and special meetings being held to ensure the proper division of roles between Covivio and its tenants in achieving the decree's energy consumption reduction targets.

Covivio Immobilien supports its tenants to reduce their energy consumption

An energy-saving awareness campaign was launched in 2021 among tenants in cooperation with the city of Oberhausen and the North Rhine-Westphalia Consumer Advice Centre. During a free online seminar, tenants were able to learn how to reduce their household's electricity consumption through simple actions. By offering them the loan of an electricity meter, tenants were able to assess their own consumption in relation to average values and correctly interpret the energy information provided by new appliances.



Tristan Cazin – Deputy Chief Operating Officer at Expertise France



Our first objective in taking over the Gobelins building was to bring together our 550 employees on a single site in Paris, with the possibility of operating as a flex office. The choice of an eco-responsible building was also decisive. Covivio supported us during all phases of the project and worked with our "green agency", an internal unit in charge of sustainable development issues. This collaboration made it possible to make several adjustments, such as creating a collaborative vegetable garden on the roof terrace, increasing the size of the bicycle room and reserving a space for swapping second-hand products.



ATE I

ENGAGING CUSTOMERS IN THE TRANSITION

92% of the 18 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.



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 2021, 97% of Covivio assets were less than 5 minutes from public transport (99.8% less than 10 minutes), beating the 95% target. 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.

MOBILITY STUDY FOR THE EUROPE OFFICES PORTFOLIO (GROUP SHARE VALUE AS OF 31/12/2021):



DECONSTRUCTION

In line with its commitment to the circular economy (page 19), Covivio pays particular attention to how construction and demolition waste is managed. This 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. An excerpt for three construction sites in France is shown below.

SUMMARY OF THE CONSOLIDATED ENVIRONMENTAL REPORTING FOR THREE CONSTRUCTION SITES DELIVERED, OR UNDERWAY, IN 2021 (PARIS MADRID (8TH), LEVALLOIS ALIS, MONTROUGE FLOW)

Office space (m² floorspace)			51,233 m ²		
Energy consumed			155.16 MWh 3,788 m ³		
Water					
Waste reporting when the construction site closes Including % Including % recycled/reused Including % incinerated, of which energy recovery			Including % buried/ Including % managed sent to landfill by local authorities TOTAL		
Non-hazardous waste - OIW	88.6%	3.8%	7.4%	0.3%	1,021.8 tonnes
Green waste	-	-	-	-	0 tonne
Non-hazardous waste - Steel	97.6%	2.4%	-	_	136.9 tonnes
Inert waste	56.8%	27.2%	16.0%	-	1,785.9 tonnes
Wood waste	22.4%	77.6%	-	-	43.1 tonnes
Cardboard waste	100.0%	-	-	-	52.3 tonnes
TOTAL NON- HAZARDOUS WASTE	69.5%	18.5%	11.9%	0.1%	3,040 TONNES
Hazardous waste					1.8 tonnes



Matthias Sauerbruch –

Architect, Germany

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We have experienced a real transformation over the last ten years, with ecology and, more particularly, climate issues, taking centre stage. The construction sector has had a major role to play, leading to far-reaching changes in how buildings are designed. The choice of materials, technologies and the way in which buildings are designed to operate is well thought out with the aim of building projects that contribute to carbon neutrality or even positive energy. The 2020s are thus marking a decisive turning point in how we reinvent buildings and the city. As architects, we owe it to ourselves to support this change alongside committed players such as Covivio.



According to the initial results obtained from reporting on Italian construction sites, the recycling rate is over **90%**, across a panel of projects delivered in 2021 (34,000 m²).

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). In addition, the construction of So Pop required more than 3,000 m² of raised flooring sourced from the circular economy sector, i.e. 10% of all surface areas.



INNOVATION: Demolition in the age of BIM and Blockchain

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 m² building via a blockchain-based works contract, simplifying and securing the digital signature procedure.



Cédric BOREL -

Director of the French Institute for Building Efficiency (IFPEB)

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A construction sector in harmony with global limits and moving towards carbon neutrality, it is first and foremost a sector that consumes less and better. Consuming not only less energy but also fewer materials, through reuse or by considering the building as a "materials bank". And consuming better, by opting for renewable energy and choosing low-carbon materials with less of an environmental impact. Covivio is involved in the Low Carbon Specifiers Hub, a space that supports the decision to choose low-carbon construction materials and processes. The work carried out by this group identified the fact that the reuse of materials makes it possible for new buildings to emit up to 100 kgCO₂/m³ less. Reuse is, therefore, not only an essential weapon in the fight against global warming, but also an ally of choice in this era of shortages and higher materials costs.

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SO POP - Saint-Oue



RESIDENTIAL BUILDING IN GERMANY:

With a presence across different sectors and countries, the Group's business model makes it resilient to external shocks. Climate risk has been identified for several years and is the subject of dedicated action plans.

A resilient business model in the light of climate risk

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 Group risk mapping, which is regularly updated under the oversight of the Risk, Compliance, Audit and Internal Control Department, two other maps were created. One in 2018, covering the most material CSR risks for Covivio and the other in 2020, covering risks, in particular CSR risks, 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.



IDENTIFICATION OF PHYSICAL AND TRANSITION CLIMATE RISKS

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

MAKING BUILDINGS MORE RESILIENT

URBAN RESILIENCE

Covivio's response to **resilience issues** 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. By using 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

In 2020 Covivio trialled the **EY CAP 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 one degree. The model also addresses two major hazards, given the location of Covivio's assets: heatwaves (5 consecutive days at a temperature 5 degrees

higher than the historical average) and intense rainfall (more than 20 mm/m²/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.





ASSESSING THE FINANCIAL IMPACT OF CLIMATE CHANGE-RELATED RISKS

Since 2020, Covivio has charged MSCI with **preparing a Climate Value-at-Risk® study** on its Offices in Europe portfolio. This tool was built to calculate the financial impact of physical and transition climate risks, based on a series of recognised scientific models. Climate Value-at-Risk® calculates the costs incurred, discounted to 2100, and expresses them as a percentage of the value of the asset or portfolio. Covivio has decided to continue this study of the financialisation of climate change-related costs on its portfolio of Core offices in Germany, France and Italy, i.e. 179 assets. MSCI used data specific to Covivio's assets: location, surface area, building type, energy consumption and CO₂ emissions.

PHYSICAL RISKS

For each asset, the model analyses the main physical risks (coastal and river flooding, extreme cold, extreme heat, cyclones, forest fires) and the cost of transition risks. The study confirms that very few Covivio assets are exposed to significant physical risks, so that the issue at portfolio level is more in relation to transition risks. By 2100, the physical risks weighed in at **0,04%** of the value of the assets analysed and the main risks identified were extreme heat and river flooding.

TRANSITION RISKS

Almost all of the financial risk is thus based on transition risks (inherent in the need to reduce greenhouse gas emissions and taking into account expected changes in terms of demographics, energy mix and carbon costs), which amount to a maximum of **2.69%** of value, due to the efforts required to align with a 1.5°C trajectory, and 2.2% to align with a 2°C trajectory. As it stands, the portfolio's carbon emissions correspond to a warming potential of 2.5°C by 2100. Alignment with a 1.5°C trajectory represents an annual effort to reduce emissions by 4.7% per year over the next 15 years (3.1% for a 2°C trajectory).

MSCI's breakdown of the climate value-at-risk of Covivio Offices and pan-European real estate funds.



Climate Value-at-Risk[®] by 2100 is **-2.73%** based on the values of the 179 assets analysed (accounting for more than €7 billion in Group share of the portfolio, i.e. 9.8 billion in 100%).

In 2022, the MSCI Real Estate Climate Value-at-Risk® study was carried out again across the Offices scope and extended to German Residential and Hotels Europe portfolios to cover all of the Group's activities.



René Veerman – Head of Real Estate, MSCI

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MSCI has been working with Covivio's ESG team for two years to deepen their risk analysis by incorporating a new focus, climate value-at-risk. In a context where awareness of the effects of climate change is accelerating, Covivio has been a pioneer in the field and has adopted the MSCI Real Estate Climate solution. This consists of a forward-looking assessment of climate change-related costs in terms of assets and real estate portfolio and allows investors to measure the impact of climate risks, now and in the future.

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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 Europe
99.3%	93.6%	34.2%	100%	80.4%

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, **46.7%** 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 20% between 2019 and 2030 (-14% at the end of 2021):

Portfolio	Target	Timeframe	Achievement at 31/12/2021
France Offices	-50%	2010/2030	299 kWhpe/m²
	i.e. 270 kWhpe/m²/year		-44.7% compared to 2010
Italy Offices	-30%	2015/2030	136 kWhpe/m ²
(Operational control)	i.e. 137 kWhpe/m²/year		-30.6% compared to 2015
German Residential	-15%	2017/2025	197 kWhpe/m²
(representative panel)	i.e. 194 kWhpe/m²/year		-9.6% compared to 2017
Hotels Europe	-50%	2010/2030	286 kWhpe/m²
	i.e. 308 kWhpe/m²/year		-53.6% compared to 2010

Total final energy consumption of the portfolio in 2021: 422,250,295 kWhfe, of which 15% renewable energy (green electricity, green gas, photovoltaic, wood)

Total primary energy consumption of the portfolio in 2021: 718,190,859 kWhpe, i.e. 280.4 kWpe/m² in the 2021 reporting scope (2,560,887 m²)⁽¹⁾

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

- 15% at the end of 2021 in France (by surface area);
- Covivio partner in the development of a European low-carbon label⁽²⁾;

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

- 74% at the end of 2021.
- At 31/12/2021

ENERGY INTENSITY OF THE PORTFOLIO

280 KWHPE/M² OR -13.6% COMPARED TO 2019 TARGET -20% BY 2030 $\frac{\text{CARBON INTENSITY (SCOPES 1,2,3)}}{56 \text{ KGCO}_2/\text{M}^2}$

-26% COMPARED TO 2010 TARGET -40% BY 2030 PORTFOLIO CERTIFICATION 90.7% BY GROUP SHARE VALUE 100% TARGET BY 2025

(1) First year of reporting for Germany Offices portfolio, not included here.

(2) https://www.batimentbascarbone.org/wp-content/uploads/2022/03/2022-03-14-LCB-Initiative-Press-Release.pdf.



LIMITED ASSURANCE REPORT FROM THE INDEPENDENT VERIFIER ON A SELECTION OF NON-FINANCIAL INFORMATION

FISCAL YEAR ENDED 31 DECEMBER 2021

As requested, and in our capacity as independent verifier, and member of the network of one of your company's Statutory Auditors (hereinafter "entity"), we hereby present to you our report on a selection of non-financial information for the fiscal year ended 31 December 2021, as detailed in Appendix 1 (hereinafter the "Information"), prepared in accordance with the entity's procedures (hereinafter the "Guidelines"), presented in its climate report.

Conclusion

Based on the procedures we have implemented, as described in the "Nature and scope of the 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 accordance with the Guidelines.

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 voluntary approach, it is the responsibility of the entity to prepare the Information, in accordance with the procedures used by the entity (hereinafter the "Guidelines"), available on request at the entity's head office.

Independent verifier's responsibility

It is our responsibility, in response to the entity's request, based on our work, to express 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 2021 and, in particular, on the entity's compliance with the applicable legal and regulatory provisions.

Independence and quality control

Our independence is defined 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 2021 and March 2022 over a total of eleven weeks.

Nature and scope of work

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

- 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 following quantitative information:
 - 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 portfolios listed hereafter: Covivio Italy and France Offices covering
 between 15% and 100% of the consolidated data selected for these tests (15% of water consumption, 32% of final energy consumption,
 100% of energy performance diagnostics completed);
- we assessed the overall consistency of the non-financial information with our knowledge of all the entities included in the scope of consolidation.

We believe that the work we have carried out, by exercising our professional judgement, enables us to formulate a conclusion of limited assurance; a higher level of assurance would have required a more extensive audit.

Paris-La Défense, 06 May 2022

Eric Duvaud

Sustainable development partner

APPENDIX 1: VERIFIED INFORMATION

Quantitative information (including key performance indicators)	Qualitative information (actions or results)
Social in	formation
Total workforce. The percentage of employees on permanent contracts.	-
Environment	al information
The greening rate of the portfolio (France Core Offices, Italy Offices, German Residential, Hotels Europe.) Energy intensity (kWhfe/m ² /year and KWhpe/m ² /year) of the real estate portfolio. Carbon intensity (kgCO ₂ /m ² /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 in France, hotels and residential in Germany)). Water intensity (m ³ /m ² /year) of France Offices.	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.
Societal i	nformation
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.

(1) Assurance engagements other than audits or reviews of historical financial information.

Designed & published by \rightarrow LABRADOR +33 (0)1 53 06 30 80

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