SECOND PARTY OPINION
on the sustainability of Métropole de Lyon’s Green, Social and Sustainability Bond Framework

Moody's ESG Solutions considers that Métropole de Lyon's Framework is aligned with the four core components of the ICMA’s Green Bond Principles 2021 (“GBP”) and Social Bond Principles 2021 (“SBP”).

Framework

<table>
<thead>
<tr>
<th>Contribution to Sustainability:</th>
<th>Expected impacts</th>
<th>ESG risks management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>Weak</td>
<td>Limited</td>
</tr>
<tr>
<td>Advanced</td>
<td>Limited</td>
<td>Robust</td>
</tr>
<tr>
<td>Robust</td>
<td>Advanced</td>
<td></td>
</tr>
</tbody>
</table>

Characteristics of the Framework

<table>
<thead>
<tr>
<th>Green and Social Project Categories</th>
<th>⇒ 6 Green Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>⇒ 4 Social Categories</td>
<td></td>
</tr>
<tr>
<td>Project Locations</td>
<td>Métropole de Lyon</td>
</tr>
<tr>
<td>Existence of Framework</td>
<td>Yes</td>
</tr>
<tr>
<td>Share of Refinancing</td>
<td>Disclosed at each issuance</td>
</tr>
</tbody>
</table>

Look-back Period

24 months

Issuer

<table>
<thead>
<tr>
<th>ESG Controversies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Controversies</td>
</tr>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>Severity</td>
</tr>
<tr>
<td>Responsiveness</td>
</tr>
</tbody>
</table>

Of note, the Issuer is not part of our ESG performance rating universe and our involvement in Controversial Activities screening methodology does not cover local authorities.

Coherence

Moody's ESG Solutions considers that the Framework is coherent with Métropole de Lyon’s strategic sustainability priorities and sector issues and that it contributes to achieving the Issuer’s sustainability commitments.

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Key findings

Moody’s ESG Solutions considers that Métropole de Lyon’s Framework is aligned with the four core components of the GBP & SBP.

Use of Proceeds - aligned with the GBP & SBP and best practices identified by Moody’s ESG Solutions

- Eligible Categories are clearly defined and detailed, the Issuer has communicated the nature of the expenditures, the eligibility criteria, the target populations for social categories and the location of Eligible Projects.
- The Environmental and Social Objectives are clearly defined, these are relevant for all the eligible categories and set in coherence with sustainability objectives defined in international standards.
- The Expected Environmental and Social Benefits are clear and precise, these are considered relevant, measurable, and will be quantified for all the eligible categories in the reporting.
- The Issuer has committed to transparently communicate the estimated share of refinancing for each bond issuance in the bond documentation. The look-back period for refinanced eligible categories will be equal or less than 24 months from the issuance date, in line with good market practices.

Evaluation and Selection - aligned with the GBP & SBP and best practices identified by Moody’s ESG Solutions

- The process for Project Evaluation and Selection has been clearly defined and detailed by the Issuer, it is considered structured. The roles and responsibilities are clear and include relevant internal expertise. The process is disclosed in the Framework and in this SPO.
- Eligibility criteria (selection and exclusion) for Project selection have been clearly defined by the Issuer for all of the Eligible Categories.
- The process applied to identify and manage potentially material Environmental and Social risks associated with the projects is publicly disclosed in this SPO. The process is considered robust: it combines monitoring, identification and corrective measures for all Eligible Categories (see detailed analysis on pages 24 - 26).

Management of Proceeds - aligned with the GBP & SBP and best practices identified by Moody’s ESG Solutions

- The process for the Management and Allocation of proceeds is clearly defined and detailed and is publicly available in the herewith SPO.
- The allocation period will be 24 months or less.
- Net proceeds of the Bond will be tracked by the Issuer in an appropriate manner and attested in a formal internal process.
- The net proceeds will be kept in cash and there will be no temporary placements.
- The Issuer has committed that as long as the Bond is outstanding, the balance of the tracked net proceeds will be periodically adjusted to match allocations to Eligible Projects made during that period.
- The Issuer has provided information on the procedure that will be applied in case of Project divestment or postponement and it has committed to reallocating divested proceeds to projects that are compliant with the Framework within 24 months.

Reporting - aligned with the GBP & SBP

- The Issuer has committed to reporting on the Use of Proceeds annually until full allocation and on a timely basis in case of material developments. The report will be publicly available on the Issuer’s website.
- The reporting will cover relevant information related to the allocation of the Bond proceeds and to the expected Sustainable Benefits of the Categories. The Issuer has also committed to reporting on material developments/controversies related to the Projects.
- The reporting methodology and assumptions used to report on Environmental and Social Benefits of the Eligible Categories will be publicly disclosed.
- An external auditor will verify the tracking and allocation of funds to Eligible Projects until full allocation and in case of material changes. Indicators used to report on Environmental and Social Benefits of the Eligible Categories will be verified internally by the Issuer.
**SCOPE**

Moody's ESG Solutions was commissioned to provide an independent Second Party Opinion (“SPO”) on the sustainability credentials and management of the Green, Social and Sustainable Bonds\(^1\) (the “Bonds”) to be issued by Métropole de Lyon (the “Issuer”) in compliance with the Green, Social and Sustainable Bond Framework (the “Framework”) created to govern their issuance(s).

Our opinion is established according to Moody's ESG Solutions' Environmental, Social and Governance (“ESG”) exclusive assessment methodology and to the latest version of the voluntary guidelines of ICMA’s Green Bond Principles (“GBP”) and Social Bond Principles (“SBP”) - edited in June 2021 (referred together as the “GBP & SBP”).

Our opinion is built on the review of the following components:

- **Framework**: we assessed the Framework, including the coherence between the Framework and the Issuer’s environmental and social commitments, the Bond’s potential contribution to sustainability and its alignment with the four core components of the GBP & SBP 2021.

- **Issuer\(^2\)**: we assessed the Issuer’s management of potential stakeholder-related ESG controversies.

Our sources of information are multichannel, combining data (i) gathered from public sources, press content providers and stakeholders, (ii) from our exclusive ESG rating database, and (iii) information provided from the Issuer through documents.

We carried out our due diligence assessment from September 22\(^{nd}\) to April 15\(^{th}\), 2021. We consider that we were provided access to all documents. For this purpose, we made reasonable efforts to verify the accuracy of all data used as part of the assessment.

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### Type of External Reviews supporting this Framework

| ☒ | Pre-issuance Second Party Opinion | ☐ | Independent verification of impact reporting |
| ☒ | Independent verification of funds allocation | ☐ | Climate Bond Initiative Certification |

\(^1\)The “Green, Social and Sustainable Bonds” are to be considered as the bonds to be potentially issued, subject to the discretion of the Issuer. The terms “Green”, “Social” and “Sustainable Bond” have been decided by the Issuer: it does not imply any opinion from V.E.

\(^2\)The Issuer is not part of our ESG performance rating universe.

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COHERENCE

We consider that the contemplated Framework is coherent with Métropole de Lyon’s strategic sustainability priorities and sector issues and that it contributes to achieving the Issuer’s sustainability commitments.

Local authorities play a crucial role in the promotion of sustainable development. Public institutions are often at the core of project financing for the development of the jurisdictions under their control. Through public tenders and contracts, local authorities can set the basic requirements to be followed in terms of social and environmental practices. These institutions are called to develop solutions for its population while promoting the sound use of environmental resources. By implementing actions targeting, among others, sustainable mobility, green buildings, energy efficiency, access to essential services or socioeconomic empowerments, local authorities could effectively support the attainment of the sustainable goals of the 2030 Agenda for Sustainable Development and drive meaningful, measurable and sustainable action on climate change and human rights.

Métropole de Lyon appears to acknowledge its role in promoting sustainable development by tackling its main environmental and social challenges. It takes pride in its ambition to foster inclusive territories and an exemplary ecological transition.

Métropole de Lyon has defined the strategic framework of its 2030 public energy transition policy, which aims to reduce energy consumption and greenhouse gas emissions as well as increase the production of renewable and recovered energies (RE&R). It integrates all of the energy-related competencies of the Issuer, namely the support for actions to control energy demand, the development of renewable and recovery energies, creation, development, maintenance, management of urban heating or cooling networks and public electricity and gas distribution concession. Métropole de Lyon is also committed to reducing its greenhouse gas emissions (GHG) by 43% and its emissions of fine particles (PM2.5 and PM10) and nitrogen oxides (NOx) by 70% all by 2030 compared to 2000 levels. The Métropole de Lyon ultimately aims to reduce its greenhouse gas emissions by 79% by 2050 compared to 2000 levels and to reduce its energy consumption by 63% by 2050 compared to 2000.

Concerning social issues, Métropole de Lyon has adopted the Metropolitan Solidarity Project, which defined 80 actions to rethink the way social policies are conducted on the territory over the 2017-2022 period. It relies on (i) developing prevention for all (putting in place tools to better identify and support vulnerable populations as early as possible), (ii) offering continuous and adapted pathways (development of dematerialised services, additional spots in retirement homes...) (iii) strengthening partnerships (beyond the paramount coordination with the State, Métropole de Lyon offers opportunities to create stronger bonds with the municipalities which make it up in order to promote the efficiency of public action) and (iv) promoting social and urban inclusion (undertakings in favour of the return to employment of the most vulnerable populations). A new project for the 2023-2027 will be created in 2022.

Métropole de Lyon’s overarching and most recent endeavour is the 3.6-billion-euro investment plan spanning until 2026 voted earlier in 2021 via its multi-year investment programme (“PPI”). This plan aims to initiate the recovery and ecological transition of Métropole de Lyon around three principles: ecological transition, solidarity and partnerships with the municipalities of the Métropole. The themes selected within the 2021-2026 PPI framework have been grouped into 9 key categories which reflect the Issuer’s priorities: Urban Planning and Development, Mobility and Roads, Habitat and Housing, Environment, Energy, Agriculture, Water and Waste, Energy Efficiency and Renewable Energy, Economy, Integration, Universities and Tourism, Health, Social, Education and Culture, Territorial Projects, Heritage and General Hubs, and External Contributions.
FRAMEWORK

Métropole de Lyon has described the main characteristics of the Bonds within a formalized Green, Social and Sustainability Bond Framework that covers the four core components of the GBP 2021 (the last updated version was provided to Moody’s ESG Solutions on March 18th, 2021). The Issuer has committed to make this document publicly accessible on Métropole de Lyon’s website, in line with good market practices.

Alignment with the Green Bond Principles

Use of Proceeds

<table>
<thead>
<tr>
<th>Not Aligned</th>
<th>Partially Aligned</th>
<th>Aligned</th>
<th>Best Practices</th>
</tr>
</thead>
</table>

The net proceeds of the Bonds will exclusively finance or refinance, in part or in full, projects falling under six Green Project Categories and four Social Project Categories (“Eligible Categories”), as indicated in Table 1.

- Eligible Categories are clearly defined and detailed, the Issuer has communicated the nature of the expenditures, the eligibility criteria, the target populations for social categories and the location of Eligible Projects.
- The Environmental and Social Objectives are clearly defined, these are relevant for all the eligible categories and set in coherence with sustainability objectives defined in international standards.
- The Expected Environmental and Social Benefits are clear and precise, these are considered relevant, measurable, and will be quantified for all the eligible categories in the reporting.
- The Issuer has committed to transparently communicate the estimated share of refinancing for each bond issuance in the bond documentation. The look-back period for refinanced eligible categories will be equal or less than 24 months from the issuance date, in line with good market practices.

An area for improvement would be to provide the share of refinancing for all categories or at bond level.

<table>
<thead>
<tr>
<th>BEST PRACTICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>⇒ The definition and eligibility criteria (selection and exclusion) are clear and in line with international standards for all categories.</td>
</tr>
<tr>
<td>⇒ Relevant environmental and social benefits are identified and measurable for all project categories.</td>
</tr>
<tr>
<td>⇒ The Issuer has committed to transparently communicate the estimated share of refinancing for each bond issuance in the bond documentation.</td>
</tr>
<tr>
<td>⇒ The look-back period for refinanced eligible categories will be equal or less than 24 months from the issuance date, in line with good market practices.</td>
</tr>
</tbody>
</table>

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https://www.grandlyon.com/metropole/financement.html
Table 1. Our analysis of Eligible Categories, Sustainability Objectives and Expected Benefits as presented in the Issuer’s Framework

- Nature of expenditures: CapEx, expenditures for studies and subsidies.
- Location of Eligible Projects: Métropole de Lyon’s territory.

<table>
<thead>
<tr>
<th>ELIGIBLE CATEGORIES</th>
<th>DESCRIPTION</th>
<th>SUSTAINABILITY OBJECTIVES AND BENEFITS</th>
<th>MOODY'S ESG SOLUTIONS' ANALYSIS</th>
</tr>
</thead>
</table>
| Renewable energy    | Investments that support the production, distribution and maintenance of renewable energy generation sources (with direct emissions ≤ 100g CO₂/kWh), including:
  - wind energy
  - solar energy
  - biomass energy
  - geothermal energy
  Enhanced geothermal systems will be excluded. | Climate change mitigation
GHG emissions avoidance | The Eligible Category is clear. The Issuer has communicated on the nature of the expenditure, the eligibility criteria and the location of Eligible Projects.
An area for improvement would be to exclude forestry products for biomass.
The Environmental Objective is clearly defined, relevant and set in coherence with sustainability objectives defined in international standards.
The Expected Environmental Benefit is clear, it is considered relevant, measurable, and will be quantified for all the Eligible Projects in the reporting. |
| Clean transportation| Investments that contribute to the promotion of clean public transport and encourage multimodal transport solutions, including:
  - Construction, acquisition, operation and maintenance of rail transport infrastructure as well as electric rolling stock (metro, trams, signalling)
  - Electric buses, bicycle lanes
  Development for active and soft modes
  Investments contributing to the improvement of air quality, in particular through the creation of car-sharing and car-pooling lanes, renewal of the Metropolis’ vehicle fleet, vehicle conversion bonus for professionals and individuals. | Climate change mitigation
GHG emissions avoidance | The Eligible Category is clear. The Issuer has communicated the nature of the expenditure, the eligibility criteria and the location of Eligible Projects.
The Environmental Objective is clearly defined, relevant and set in coherence with sustainability objectives defined in international standards.
The Expected Environmental Benefit is clear, it is considered relevant, measurable, and will be quantified for all the Eligible Projects in the reporting. |

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Biomass feedstocks will be limited to sources such as agricultural or forestry residues that do not deplete existing terrestrial carbon pools or compete with food production, following the criteria set by ADEME:

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<th>MOODY’S ESG SOLUTIONS’ ANALYSIS</th>
</tr>
</thead>
</table>
| Green buildings                  | Investments that support the construction of low or very low energy buildings and the improvement of the energy efficiency of buildings:  
- Construction of buildings in line with RT2012 or RT2012-20% regulations  
- Construction of buildings benefiting from the following labels or equivalents:  
  - LEED Gold  
  - BREEAM Very Good  
  - HQE Excellent  
Rehabilitation work leading to a minimum gain of 30% in energy efficiency | Climate change mitigation  
GHG emissions avoidance                                                      | The Eligible Category is clear. The Issuer has communicated the nature of the expenditure, the eligibility criteria and the location of Eligible Projects.  
The Environmental Objective is clearly defined, relevant and set in coherence with sustainability objectives defined in international standards.  
The Expected Environmental Benefit is clear, it is considered relevant, measurable, and will be quantified for all the Eligible Projects in the reporting.                                                                                                                                                                                                                               |
| Circular economy                 | Investments that contribute to improving waste management (e.g. waste reduction, recycling and reuse)  
- Construction, operation, maintenance and upgrading of waste management infrastructure (collection, treatment, recovery)  
- Programmes that promote the development, operation, maintenance and upgrading of recycling facilities and increase the recycling and reuse of waste  
Waste-to-energy assets will be excluded. Only for electric and hydrogen vehicles are included. | Pollution Prevention and Control Reducing waste and extending the public collection service | The Eligible Category is clear. The Issuer has communicated the nature of the expenditure, the eligibility criteria and the location of Eligible Projects.  
The Environmental Objective is clearly defined, relevant and set in coherence with sustainability objectives defined in international standards.  
The Expected Environmental Benefit is clear, it is considered relevant, measurable, and will be quantified for all the Eligible Projects in the reporting.                                                                                                                                                                                                                               |
| Sustainable water and wastewater management | Investments that contribute to improved water and wastewater management:  
- Wastewater treatment facilities and urban sewage networks | Natural Resource protection  
Development of efficient water systems | The Eligible Category is clear. The Issuer has communicated the nature of the expenditure, some the eligibility criteria and the location of Eligible Projects.  
An area for improvement would be to set selection or exclusion criteria for water |
<table>
<thead>
<tr>
<th>ELIGIBLE CATEGORIES</th>
<th>DESCRIPTION</th>
<th>SUSTAINABILITY OBJECTIVES AND BENEFITS</th>
<th>MOODY'S ESG SOLUTIONS' ANALYSIS</th>
</tr>
</thead>
</table>
| Preservation of biodiversity | Improving the efficiency and quality of water production and distribution systems | Preservation of biodiversity  
Fight against heat islands  
Increasing the territory's food autonomy | production/distribution and wastewater management plants (e.g. net energy consumption).  
The Environmental Objective is clearly defined, relevant and set in coherence with sustainability objectives defined in international standards.  
The Expected Environmental Benefit is clear, it is considered relevant, measurable, and will be quantified for all the Eligible Projects in the reporting. |
| Sustainable management of living natural resources and land | Water storage facilities | | |
| Access to affordable housing | Investments that contribute to the preservation of biodiversity, landscapes and the sustainable management of natural resources:  
- Preservation and rehabilitation of natural ecosystems  
- Sustainable park management  
- Investments that promote sustainable forest management (Forest Stewardship Council (FSC), Programme for the Endorsement of Forest Certification (PEFC) or equivalent)  
- Certified organic farming | Access to affordable housing  
**Social housing**  
Developing a new supply of affordable housing, renovating the existing stock and combating substandard housing and fuel poverty | The Eligible Category is clear. The Issuer has communicated the nature of the expenditure, the eligibility criteria and the location of Eligible Projects.  
The Environmental Objective is clearly defined, relevant and set in coherence with sustainability objectives defined in international standards.  
The Expected Social Benefit is clear, it is considered relevant, measurable, and will be quantified for all the Eligible Projects in the reporting. |

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5 In accordance with national legislation: [https://www.service-public.fr/particuliers/vosdroits/F869](https://www.service-public.fr/particuliers/vosdroits/F869)  
6 [https://www.service-public.fr/particuliers/vosdroits/F869](https://www.service-public.fr/particuliers/vosdroits/F869)  
7 [https://www.service-public.fr/particuliers/vosdroits/F869](https://www.service-public.fr/particuliers/vosdroits/F869)  

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<th>MOODY’S ESG SOLUTIONS’ ANALYSIS</th>
</tr>
</thead>
</table>
| Access to basic services: health | Investments that finance health infrastructure or service through:  
- the “Maisons de la Métropole” and the creation of a multi-professional health centre  
- IDEF (Institut Départemental de l’Enfance et des Familles), which is a place specialised in the emergency care of babies, minors and their mothers  
- Ehpads (residential facilities for dependent elderly people)  
- The creation of homes/units for the disabled  
**Target population:** elderly people, people with disabilities. The buildings concern adults and children in precarious conditions. | **Access to basic services**  
Increase access to and quality of healthcare services for elderly people and people with disabilities | The Eligible Category is clear. The Issuer has communicated the nature of the expenditure, the eligibility criteria, the target populations and the location of Eligible Projects.  
The Social Objective is clearly defined, relevant and set in coherence with sustainability objectives defined in international standards.  
The Expected Social Benefit is clear, it is considered relevant, measurable, and will be quantified for all the Eligible Projects in the reporting. |

| Access to basic services: education and sport | Investment in school infrastructure² and equipment, including:  
- The deployment of digital education in secondary schools  
- Sports facilities  
**Target population:** students of public schools (education) in priority education areas and programmes for people with disabilities (sport).  
Education: Priority education areas (Réseau d’Éducation Prioritaire) are listed by the French government and are the qualification of schools as “REP” establishments depends on the following criteria: the rate of disadvantaged | **Access to basic services**  
Improving educational infrastructure and facilities in priority areas  
Promoting sports for people with disabilities | The Eligible Category is clear. The Issuer has communicated the nature of the expenditure, the eligibility criteria, the target populations and the location of Eligible Projects.  
The Social Objective is clearly defined, relevant and set in coherence with sustainability objectives defined in international standards.  
The Expected Social Benefit is clear, it is considered relevant, measurable and will be quantified for all the Eligible Projects in the reporting. |

² For sport equipment, the Issuer has stated that “A qualitative mapping of the facilities present was carried out in 2014 by the Urban Planning Agency (and updated since). Based on the standards of the State’s Sports Equipment Census (RES), it makes it possible to identify the deficient areas in the agglomeration (highlighting a stronger deficiency in the so-called QPV neighborhoods on the one hand and in the geographical areas to the east / north or west on the other).”

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</tr>
</thead>
</table>
| Socioeconomic development / job creation | socio-professional categories, the rate of students receiving grants, the rate of students residing in a city’s priority districts (OPV) and the rate of students having repeated their first year of middle school (“6ème”).  
Sports: A qualitative mapping of the facilities present was produced in 2014 by the Urban Planning Agency (and updated since). Based on the standards of the State's Sports Equipment Census (RES), it is possible to identify the areas with a lack of facilities in the territory of the Métropole. | **Socioeconomic Development Supporting business creation and job creation**                                                                                                                                  | The Eligible Category is clear. The Issuer has communicated the nature of the expenditure, the eligibility criteria, the target populations and the location of Eligible Projects.  
The Environmental Objective is clearly defined, relevant and set in coherence with sustainability objectives defined in international standards.  
The Expected Environmental Benefit is clear, it is considered relevant, measurable, and will be quantified for all the Eligible Projects in the reporting. |
| Investments that support business and job creation and investment in the "social and solidarity economy", including: | - Creation of two new entrepreneurial hubs in the area  
- Creation of the Halles de l'économie circulaire  
- Restoration of industrial wastelands  
- Creation of an industrial seed fund with positive impacts  
- Support for local shops | | |
| The "social and solidarity economy" is formally defined by a 2014 French law. It refers to a group of companies organised in the form of cooperatives, mutual insurance companies, associations, or foundations. | | | |
| Target population: unemployed people, SMEs in disadvantaged areas, social economy enterprises, etc. | | | |

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8 [https://www.cohesion-territoires.gouv.fr/politique-deduction-prioritaire](https://www.cohesion-territoires.gouv.fr/politique-deduction-prioritaire)  
### SDG Contribution

The Eligible Categories are likely to contribute to 9 of the United Nations’ Sustainable Development Goals (“SDGs”), namely:

<table>
<thead>
<tr>
<th>ELIGIBLE CATEGORY</th>
<th>SDG</th>
<th>SDG TARGETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to basic services: health</td>
<td><img src="image" alt="Healthy Life and Ageing" /></td>
<td>3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.</td>
</tr>
<tr>
<td>Access to basic services: education and sport</td>
<td><img src="image" alt="Quality Education" /></td>
<td>4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.</td>
</tr>
<tr>
<td>Sustainable water and wastewater management</td>
<td><img src="image" alt="Clean Water and Sanitation" /></td>
<td>6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.</td>
</tr>
<tr>
<td>Renewable energy</td>
<td><img src="image" alt="Affordable and Clean Energy" /></td>
<td>7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.</td>
</tr>
<tr>
<td>Socioeconomic development / job creation</td>
<td><img src="image" alt="Decent Work and Economic Growth" /></td>
<td>8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises, including through access to financial services.</td>
</tr>
<tr>
<td>Access to affordable housing</td>
<td><img src="image" alt="Sustainable Cities and Communities" /></td>
<td>11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.</td>
</tr>
<tr>
<td>Clean transportation</td>
<td><img src="image" alt="Sustainable Cities and Communities" /></td>
<td>11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.</td>
</tr>
<tr>
<td>Circular economy</td>
<td></td>
<td>12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.</td>
</tr>
<tr>
<td>Renewable Energy</td>
<td><img src="image" alt="Climate Action" /></td>
<td>UN SDG 13 consists of taking urgent action to combat climate change and its impacts. Metropolises can contribute to this goal by investing in renewable energy, improving energy efficiency, reducing GHG emissions from transport through the transition towards electric vehicles; and through research addressing climate change mitigation and adaptation.</td>
</tr>
</tbody>
</table>

Green buildings
Clean transportation

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<thead>
<tr>
<th>ELIGIBLE CATEGORY</th>
<th>SDG</th>
<th>SDG TARGETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preservation of biodiversity</td>
<td>15.1</td>
<td>By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.</td>
</tr>
<tr>
<td>Sustainable management of living natural resources and land</td>
<td>15.2</td>
<td>By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.</td>
</tr>
</tbody>
</table>
Evaluation and Selection of Eligible Projects

- The process for Project Evaluation and Selection has been clearly defined and detailed by the Issuer, it is considered structured. The roles and responsibilities are clear and include relevant internal expertise. The process is disclosed in the Framework and in this SPO.
- Eligibility criteria (selection and exclusion) for Project selection have been clearly defined by the Issuer for all of the Eligible Categories.
- The process applied to identify and manage potentially material Environmental and Social risks associated with the projects is publicly disclosed in this SPO. The process is considered robust: it combines monitoring, identification and corrective measures for all Eligible Categories (see detailed analysis on pages 24 - 26).

Process for Project Evaluation and Selection

Eligible Projects will be selected in the Framework of the Multi-Year Investment Program. The evolution of this program is monitored by a dedicated Committee. This Committee meets regularly (approximately twice a year) and is composed as follows:

- Permanent members:
  - President;
  - Vice-President in charge of the economy;
  - Vice-President in charge of urban planning;
  - Vice-President in charge of territorial equality;
  - Vice-President in charge of finance;
  - Head of the Investment Monitoring Committee.

- Permanent guests:
  - Cabinet Director;
  - General Management;
  - Finance and Management Control Department.

Guests invited depending on the order of the day:

- Vice President in charge of the project;
- Deputy General Manager and/or Operational Manager accompanied by the team in charge of the project.

- The Committee is responsible for:
  - The selection, validation and monitoring of eligible assets/projects presented by the Finance Department and the departments to the President.

Prior to each Committee, the Finance and Management Control Department and the operational departments will list the projects that can meet the specifications for green, social and sustainable investments. This Committee will propose to the President a selection of eligible projects for arbitration and/or validation according to the community's financing needs.

The allocation of funds will be made annually on the basis of the Committee's proposals, it will also be the forum for reporting on results and impact indicators.

- The traceability and verification of the selection and evaluation of the Projects is ensured throughout the process:
  - The Issuer reports that in the event that a Project is affected by a major controversy, or becomes ineligible, or is cancelled or postponed, the Métropole de Lyon undertakes to reallocate the corresponding portion of the funds allocated from the Green, Social and/or Sustainable Bond to another eligible project within 24 months.
  - The projects selected by the finance department and the operational services will be the subject of a specific reference called "project that can be financed within the Framework of the Bond Program" during
the Investment Monitoring Committee that meets on a monthly basis. A report will subsequently be written accordingly.

Eligibility Criteria

The process relies on explicit Eligibility Criteria (selection and exclusion), relevant to the Environmental and Social Objectives defined for the Eligible Categories.

- The selection criteria are based on the definitions in the Eligible Categories defined Table 1 in the Use of Proceeds section.
- Eligible expenditures exclude expenses related to the following activities:
  - Production of or trade in arms and ammunitions;
  - Production of fossil fuels;
  - Production of or trade in tobacco;
  - Production of nuclear and fossil fuels;
  - Production of any product or activity that does not comply with the legal framework of communities, national and international agreements;
  - Enhanced geothermal systems;
  - Fossil fuel vehicles.

<table>
<thead>
<tr>
<th>BEST PRACTICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>⇒ Eligibility and exclusion criteria for project selection are clearly defined and detailed for all of the project categories.</td>
</tr>
<tr>
<td>⇒ The Issuer reports that it will monitor compliance of selected projects with eligibility and exclusion criteria specified in the Framework throughout the life of the bond and has provided details on content/frequency/duration and on procedure adopted in case of non-compliance.</td>
</tr>
</tbody>
</table>
Management of Proceeds

- The process for the Management and Allocation of proceeds is clearly defined and detailed and is publicly available in the herewith SPO.
- The allocation period will be 24 months or less.
- Net proceeds of the Bond will be tracked by the Issuer in an appropriate manner and attested in a formal internal process.
- The net proceeds will be kept in cash and there will be no temporary placements.
- The Issuer has committed that as long as the Bond is outstanding, the balance of the tracked net proceeds will be periodically adjusted to match allocations to Eligible Projects made during that period.
- The Issuer has provided information on the procedure that will be applied in case of Project divestment or postponement and it has committed to reallocating divested proceeds to projects that are compliant with the Framework within 24 months.

Management Process

- The net proceeds of Green, Social or Sustainable Bond are allocated, on a nominal equivalence basis, to capital expenditures related to eligible environmental and social projects. The net proceeds of the issuances are deposited in the Treasury’s account.
- Métropole de Lyon will seek the full allocation of the funds of the Green, Social and/or Sustainable bond within 24 months of the issuance.
- The allocation of funds is monitored by the Finance and Management Control Department and the operational departments whose projects are selected. Every year, the Finance and Management Control Department will take a snapshot of the consumption of credits for each operation in the Multiannual Investment Programme selected within the framework. The operational departments will be asked to give the rate of completion of the projects.
- The funds of local authorities are centralised by the public treasuries on the single account of the Treasury. The funds allocated cannot therefore be invested elsewhere.
- Métropole de Lyon intends to maintain a portfolio of projects greater than or equal to the net balance of the green, social and/or sustainable bond funds issued. An internal monitoring process will be established to facilitate this adjustment.
- Projects facing ESG controversies will be replaced by other Eligible Projects. The reallocation process will be based on the Issuer’s best efforts.
- In case of Projects postponement, cancelation, divestment or ineligibility, or in case an Eligible Project has matured, the Issuer is committed to replacing the no longer Eligible Project by a new Eligible Project.

BEST PRACTICES

⇒ The allocation period is 24 months or less.
⇒ The Issuer has provided information on the procedure that will be applied in case of Project divestment or postponement and it has committed to reallocating divested proceeds to projects that are compliant with the Framework within 24 months.
Reporting

- The Issuer has committed to reporting on the Use of Proceeds annually until full allocation and on a timely basis in case of material developments. The report will be publicly available on the Issuer’s website.
- The reporting will cover relevant information related to the allocation of the Bond proceeds and to the expected Sustainable Benefits of the Categories. The Issuer has also committed to reporting on material developments/controversies related to the Projects.
- The reporting methodology and assumptions used to report on Environmental and Social Benefits of the Eligible Categories will be publicly disclosed.
- An external auditor will verify the tracking and allocation of funds to Eligible Projects until full allocation and in case of material changes. Indicators used to report on Environmental and Social Benefits of the Eligible Categories will be verified internally by the Issuer.

An area for improvement is to commit to an external verification of the indicators used to report on environmental and social benefits of the Eligible Categories.

Indicators

The Issuer has committed to transparently communicate at Eligible Category level, on:

- Allocation of proceeds: The indicators selected by the Issuer to report on the allocation of proceeds are relevant and exhaustive.

**REPORTING INDICATORS**

⇒ A detailed list of eligible projects;
⇒ The financial allocation for each project and its consumption rate;
⇒ The share of refinancing (%);
⇒ The share (%) of Green, Social or Sustainable funding for each project (co-financing);
⇒ The share (%) remaining to be allocated to each project.

- Environmental and Social Benefits: The indicators selected by the Issuer to report on the Environmental and Social Benefits are clear, relevant and exhaustive for a majority of Project Categories.

<table>
<thead>
<tr>
<th>ELIGIBLE CATEGORIES</th>
<th>ENVIRONMENTAL BENEFITS INDICATORS</th>
<th>IMPACT INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewable energy</td>
<td>Installed capacity (MW)</td>
<td>Estimated CO₂ emissions avoided per year (tCO₂/year)</td>
</tr>
<tr>
<td></td>
<td>Estimated renewable energy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>produced per year (MWh/year)</td>
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<tr>
<td>ELIGIBLE CATEGORIES</td>
<td>ENVIRONMENTAL BENEFITS INDICATORS</td>
<td>IMPACT INDICATORS</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>Clean transportation</td>
<td>Kilometres of cycle lanes built</td>
<td>Estimated CO₂ emissions avoided per year (tCO₂/year)</td>
</tr>
<tr>
<td></td>
<td>Amount of vehicle conversion premiums paid to professionals and individuals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Percentage of the Metropole’s vehicle fleet renewed</td>
<td></td>
</tr>
<tr>
<td>Green buildings</td>
<td>Energy savings in MWh</td>
<td>Estimated CO₂ emissions avoided per year (tCO₂/year)</td>
</tr>
<tr>
<td></td>
<td>Number of buildings constructed/to be constructed financed (with type and scope of energy renovations)</td>
<td></td>
</tr>
<tr>
<td>Circular economy</td>
<td>Volume of waste treated (% or m³/year)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reduction in the amount of waste produced (tonnes)</td>
<td></td>
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<tr>
<td>Sustainable water and wastewater</td>
<td>Volume of water treated</td>
<td></td>
</tr>
<tr>
<td>management</td>
<td>Volume of water saved (m³/year)</td>
<td></td>
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<tr>
<td></td>
<td>Number of projects</td>
<td></td>
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<tr>
<td></td>
<td>Improved energy efficiency of the system</td>
<td></td>
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<tr>
<td></td>
<td>Reduction in leakage (m³/year)</td>
<td></td>
</tr>
<tr>
<td>Preservation of biodiversity</td>
<td>Number of trees planted</td>
<td></td>
</tr>
<tr>
<td>Sustainable management of living</td>
<td>Number of organic production enterprises funded</td>
<td></td>
</tr>
<tr>
<td>natural resources and land</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to affordable housing</td>
<td>Number of social housing units created</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of beneficiaries</td>
<td></td>
</tr>
<tr>
<td>Access to basic services: health</td>
<td>Number of infrastructures financed by type</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of beneficiaries by type</td>
<td></td>
</tr>
<tr>
<td>Access to basic services: education</td>
<td>Number of infrastructures financed by type</td>
<td></td>
</tr>
<tr>
<td>and sport</td>
<td>Number and types of beneficiaries</td>
<td></td>
</tr>
<tr>
<td>Socio-economic development / job</td>
<td>Number of beneficiaries</td>
<td>Number of jobs created</td>
</tr>
<tr>
<td>creation</td>
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<td></td>
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<tr>
<td>BEST PRACTICES</td>
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<tr>
<td>----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➞ The Issuer report will be publicly available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➞ The reporting will cover relevant information related to the allocation of Bond proceeds and to the expected sustainable benefits of the Categories. The Issuer has also committed to reporting on material development related to the Projects, including ESG controversies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➞ The indicators selected by the Issuer are exhaustive with regards to allocation reporting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➞ The reporting methodology and assumptions used to report on Environmental and Social Benefits of the Eligible Categories will be disclosed publicly.</td>
<td></td>
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</tbody>
</table>
CONTRIBUTION TO SUSTAINABILITY

Expected Impacts

The potential positive impact of the eligible projects on environmental and social objectives is considered to be advanced.

<table>
<thead>
<tr>
<th>ELIGIBLE CATEGORY</th>
<th>EXPECTED IMPACT</th>
<th>ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewable energy</td>
<td>ADVANCED</td>
<td>According to the International Energy Agency(^\text{10}), in 2019 low-carbon energy sources accounted for 91% of the electricity produced in France. Coal plant capacities remain to be phased out. Although being still relevant, the decarbonation of the electricity mix is not the most crucial lever to reduce the country’s environmental footprint. Solar panels are the most land requiring means of producing electricity and can therefore compete with other land uses. Information on the sourcing of panels and if the majority will be installed on roof or on ground could be valuable for minimising negative impacts. No lock-in effect is expected for wind and solar. The Issuer anticipates biomass projects from woody products following ADEME’s criteria(^\text{13}), which is excluded from certain market standards such as the Climate Bond Standards. It does not currently have formalised commitments in place to ensure that the forests in question are sustainably managed and certified as per defined under the EU Taxonomy Climate Delegated Act (June 2021). Its geothermal energy assets meet the &lt;100g CO2/kWh threshold, enhanced geothermal systems have been excluded from financing.</td>
</tr>
<tr>
<td>Clean transportation</td>
<td>ADVANCED</td>
<td>According to the Ministry of Ecological Transition(^\text{12}), transport accounts for 31% of the energy consumed in France and around 30% of the country’s total GHG emissions. Local authorities have a key role in financing heavy infrastructures and public transportation. This category is expected to benefit local as well as more global stakeholders thanks to the emissions reduction anticipated. The envisaged type of projects implies medium-term changes (such as electric and hydrogen vehicle conversion incentives) and even positive lock-in effects on the longer term (through rolling stock infrastructure construction and maintenance). Métropole de Lyon anticipated the renewal of its vehicles fleet: these new vehicles will either be electric or hydrogen vehicles. The Issuer also plans on fostering car-sharing (both free-floating and at stations) the Métropole de Lyon regulates the arrival of operators (for free-floating) via a label which authorises installation on the public domain (in exchange for a fee) and negotiates a geographical distribution aimed at achieving a balance between the centre and the periphery. In this case, elected representatives of the Métropole de Lyon only support electric vehicles, which is very pertinent. The Issuer will also finance cycle lanes, which are particularly relevant in metropolises’ context.</td>
</tr>
<tr>
<td>Green buildings</td>
<td>ADVANCED</td>
<td>According to the Ministry of Ecological Transition(^\text{12}) the real estate sector accounts for 44% of the energy consumed in France, particularly due to heating purposes in the residential sector, and around 25-30% of the country’s total GHG emissions. Renovation and construction of energy efficient buildings are a key priority for local authorities. According to the French National Low-Carbon Strategy(^\text{14}), 370,000 buildings have to be fully renovated annually between 2015 and 2030 and 700,000 annually between 2030 and 2050, against less than 300,000 currently. This category includes construction, which ultimately has a negative environmental impact even if it is somewhat mitigated. Having said this, the expected construction works will align with best practices and the buildings in question will be particularly energy efficient by aligning with stringent regulation (RT2012, RT2012-20%) and relevant certifications (LEED Gold, BREEAM Very Good, HQE Excellent). The category also.</td>
</tr>
</tbody>
</table>

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\(^{10}\) https://www.iea.org/countries/France


\(^{13}\) https://www.ecologie.gouv.fr/energie-dans-batiments

\(^{14}\) https://www.ecologie.gouv.fr/sites/default/files/2020-03-25_MTES_SNBC2.pdf

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<table>
<thead>
<tr>
<th>ELIGIBLE CATEGORY</th>
<th>EXPECTED IMPACT</th>
<th>ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circular economy</td>
<td>ROBUST</td>
<td>Includes rehabilitation work leading to a minimum gain of 30% in energy efficiency which has an undeniable medium to long-term positive impact on stakeholders and aligns with best practices.</td>
</tr>
<tr>
<td>Sustainable water and wastewater management</td>
<td>ROBUST</td>
<td>According to the Issuer’s Framework, waste management makes up less than 5% of the GHG emissions emitted by Métropole de Lyon. However, the way that waste is dealt with has significant repercussions on quality of life and biodiversity. Reusing waste, as envisaged by the Issuer, is both relevant (especially as a public authority) and a best practice in waste management activities. Recycling is necessary and is absolutely a catalyst for the transition to more sustainable waste management. Increasing the number of recycling facilities is therefore also a project which has to be highlighted. Waste-to-energy projects have been excluded from financing. The waste collecting vehicles to be financed include only electric and hydrogen vehicles.</td>
</tr>
<tr>
<td>Preservation of biodiversity</td>
<td>ADVANCED</td>
<td>The population in France has attained a high level of access to water. Water withdrawal is not considered an important issue in France. Although, the management of water and wastewater not only plays a significant role in our daily lives but also has significant impact both on (i) the possible availability of clean water and (ii) the pollution of the environment. The wastewater management system the Issuer is aiming to finance will emit 15% less GHG than the one currently in place. As with all GHG emissions, any reductions will be beneficial globally. Water storage facilities are also a good project type, in that they make the best of natural occurrences for the benefit of inhabitants without additional negative externalities. The plan to disconnect wastewater management systems from rainwater in order to preserve natural aquatic habitats is a good one. For safe-drinking water, the planned renewal rate of the networks is 0.75% allowing to limit 85% of the leaks. As far as the sewage sludge anaerobic digestion project is concerned, it will at least reduce greenhouse gas emissions by about 15% compared to the existing process. All three examples are expected to have long-term benefits. The impact of wastewater management plant expenditures on the environment (which could be significant) remains unclear in the absence of formalised commitments or thresholds set by the Issuer. Recognised net energy consumption/reduction of water losses for wastewater treatment plants exist in the market (e.g. European Taxonomy).</td>
</tr>
<tr>
<td>Sustainable management of living natural resources and land</td>
<td>ADVANCED</td>
<td>Biodiversity protection relies heavily on public authorities. The Issuer’s biodiversity plan is varied and comprehensive (from pollination to organic farming to common gardens to restoring ecological corridors). An exhaustive biodiversity plan such as this one is by default of great magnitude, as it impacts ecosystems as a whole and subsequently the ecosystem services derived from them) and durable as it aims to both protect (prevention) and restore (fixing). The Issuer relies on recent French regulation which is particularly stringent on key issues, such as land use change and afforestation. It also conducts additional assessments and audits to shape its strategy.</td>
</tr>
<tr>
<td>Access to affordable housing</td>
<td>ADVANCED</td>
<td>In the French context, housing challenges remain. The Issuer targets “low-income populations”, which are formally defined at state level, relative to the resource thresholds of the beneficiaries of the legislation on low-cost housing and the new State aid in the rental sector and students with grants. This is clear and targets populations for whom it may be challenging to find decent housing. It is worth noting that the thresholds mentioned previously also apply for affordable access when purchasing a property which is highly relevant when assessing the social objectives of this category. The social aspect of rentals, aside from purely having housing, is that it is indirectly linked to many key steps in the lives of people and are paramount to the journey of empowerment (e.g. one needs an address for significant milestones such as registering for university of getting a credit card).</td>
</tr>
<tr>
<td>Access to basic services: health</td>
<td>ADVANCED</td>
<td>The COVID-19 crisis highlighted significant gaps in the French healthcare system and this category is therefore more relevant than ever in the current context. The Issuer targets the elderly and handicapped people. A 2018 report[1] by the Métropole states that life expectancy there is higher.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eligible Category</th>
<th>Expected Impact</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to basic services: education and sport</td>
<td>ADVANCED</td>
<td>The issuer aims to improve the quality of education and promote sports for all and examples it has provided includes digitalising education and building sports infrastructures. Vast disparities exist between different public school and how well they are equipped and provided. A paper by Dräger and Müller-Eiselt (2015) does mention that digitalising education offers the possibility of personalised teaching, meaning it can be more tailored and self-paced. However, this should be considered alongside a very thorough strategy, as little data is available to demonstrate to positive correlation between digitalisation and educational success. Generally speaking, in terms of quality middle (and high) school education, France is lagging behind: a comparative study of the performance of school education systems in Europe by the Institut de Recherches Economiques et Fiscales (2016) showed that France ranked 13th out of 31 despite having exceedingly large public education expenditures compared to peers. French public-school students do not perform as well as the Dutch, Swiss and Belgian students in reading, maths and science (based on the OCDE PISA tests). An interesting study finds that France spends an average of 1,638 euros per inhabitant for education — but an expenditure of more than 1,885 euros per capita, equivalent to Finland’s budget, would no longer have an influence on PISA results. This implies that, in theory, France already has a decent budget. It does not need to increase (which it most probably would with the additional of electronics). In addition, while there is a digital divide (“fracture numérique”) in France (not having access to the Internet or not knowing how to use digital tools is a handicap for nearly 17% of the French population according to an INSEE study) the vast majority of the people concerned are older people (only 2% of teens aged 15-19 do not have a computer at home). We do however note the relevance of such projects in the context of COVID-19 and distant learning. In addition, the issuer has committed to only financing IT equipment to schools in priority areas (as defined by the French state), for which the government asserts the importance of “identifying the precise difficulties the child faces” and “adapted education programmes”66. Given the recency of IT equipment implementation on a larger scale in schools, there is currently limited data to assess the long-term impact on academic shortcomings. Having said this, we consider the Issuer’s target population very well-defined and acknowledge the genuine social benefit which may arise from projects financed under this category, in that it aims to bridge a significant gap which has long-term implications for the students in question.</td>
</tr>
<tr>
<td>Socio-economic development / job creation</td>
<td>ROBUST</td>
<td>Possibly long-term issues have arisen in the socio-economic development and job creation space amidst the public health crisis. The Issuer targets the jobless, SMEs in disadvantaged areas and companies of “the social and solidarity economy”. The latter is formally defined by a French law from July 2014. It refers to a group of companies organised in the form of cooperatives, mutual insurance companies, associations, or foundations. This target population is not well-defined by also acts as a virtuous circle: by supporting these companies, the Issuer promotes their activities, which by nature aims to have a social impact. As far as “disadvantaged areas” are concerned, the Observatoire Partenarial Lyonnais en Economie (OPALE) has produced an atlas of fragility for the Insertion and Employment Department, analysing the territory of Métropole de Lyon through various indicators which helps them identify the areas most in need. The Issuer has transparently communicated on some of OPALE’s findings and they are highly relevant to the projects covered by this.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>ELIGIBLE CATEGORY</th>
<th>EXPECTED IMPACT</th>
<th>ANALYSIS</th>
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<tbody>
<tr>
<td></td>
<td>category. Both employment and promoting SMEs in disadvantaged areas and companies of the social and solidarity economy foster long term benefits. The Issuer has provided a list of controversial sectors it will not finance (see full list p.15).</td>
<td></td>
</tr>
<tr>
<td>OVERALL ASSESSMENT</td>
<td></td>
<td>ADVANCED</td>
</tr>
</tbody>
</table>
ESG Risks Identification and Management Systems in Place at Project Level

The identification and management of the environmental, social, and governance risks associated with the Eligible Projects are considered robust.9

Environmental Management

Métropole de Lyon’s industrial facilities (water treatment plants, waste treatment plants etc) are ISO 14001 certified. For a majority of projects, there is no systematic Environmental Management System approach, which constitutes an area for improvement. Having said this, we consider that the Issuer has strong Environmental Impact and Biodiversity (including Indirect Land Use Change) strategies which are worth highlighting (please see full analyses for these below).

The Métropole can either (i) be in charge of conducting the project or (ii) only provide financial support. For the latter, the local authority signs a contract defining the characteristics of the project and the requirements to be met. These contracts also include environmental and CSR criteria depending on the scope of the project, in line with current regulations and the expectations of the local authority. The contracts are managed internally by the operational departments in conjunction with the legal department and the Vice President in order to monitor the projects and to set objectives and penalties in the event of non-compliance with the criteria.

Environmental Impact Assessment

In accordance with state regulation, an “Avoid, Reduce and Compensate” (“ERC”) mechanism must be undertaken for each metropolitan project, in order to ensure the proper integration of the project into its environment and guarantee a future quality of use for the inhabitants, as well as the appropriate management of its outdoor spaces. Métropole de Lyon has communicated that 60% of its projects go through an ecological pre-diagnosis to assess the sensitivity of project sites from the very start (the stage of concept). The intended project is subsequently taken through an evaluation of its possible impacts on biodiversity which includes determining mitigation, reduction and compensation measures. In the case that the project has residual impacts on the environment, these must be compensated for and, if the project harms protected species or their habitats, a derogation motion must be undertaken. Métropole de Lyon has stated that this process takes one year, including 9 months of appraisal by the Environmental Authority (including the public enquiry). Depending on the nature of the project, the leads to the implementation of compensatory measures where relevant and the development of an ecological management guide and monitoring tools, reporting to the Environmental Authority.

Climate Change Adaptation

Several identification, prevention and mitigation mechanisms have been put in place. Regarding the resilience of infrastructures in the face of climate change for example, the Issuer has explained that its own are not by nature designed to manage extreme rainfall. Its urban planning strategy now includes so-called “risk maps” which were set up in light of PLU-H, to inform stakeholders of the runoff routes that rainwater will be most likely to use during extreme weather events. New regulations are in place to prohibit construction across these axes and limit construction in surrounding areas. With regard to the risk of temperature increases, Métropole de Lyon is currently most concerned by the temperature of wastewater treatment plant discharges into the aquatic environment (which is limited to 25°C) and more specifically by the fact that effluents can already reach the plant at very high temperatures. For this reason, the Issuer collaborates upstream with industrialists to limit the discharges’ temperature. As far as the drinking water network is concerned, it is – generally speaking - designed to allow management and emergency interconnections but will however face changes in order to meet the city’s political ambitions, which includes generalising the return of sludge to the ground. Lastly, despite drinking-water resources being largely adequate for now, Métropole de Lyon has witnessed a downward trend due to climate change and its effects on the flow of the Rhône and secondary resources. As a result, a strategic framework will be presented to the deliberative assembly by the end of 2021; it is intended to be followed by a programme of work in order to have two separate and independent resource chains. We wish to emphasise the pertinent work the Issuer has undertaken and consider that the policies which are already formalised are robust.

Environmental Pollution

The policies linked to pollution control are indirectly linked to the Management of Aquatic Environments and Flood Prevention competence (“GEMAPI”10). Métropole de Lyon has transparently communicated that on the Water and Aquatic Environment aspect, its ambitions are still in the process of being defined. It is envisaged to propose a deliberative assembly to implement the GEMAPI tax adapted to the financing of these ambitions. A deadline for implementation in 2023 is currently under study.

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9 The “X” indicates the S&S risks that have been activated for each Eligible Category.
10 GEMAPI is a new, exclusive and mandatory legal competence in France entrusted from January 1st, 2018 to public establishments of intercommunal cooperation with their own tax system.

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While V.E values the current efforts of defining and implementing policies on Water and the Aquatic Environments, it must be noted that these are not currently formalised.

Biodiversity

Lyon Métropole has set up a strategy to foster the "Green and Blue Framework" – a concept coined by the French government in 2010 ("Trame Verte et Bleue") which defines a network of terrestrial and aquatic continuities as identified by regional and national planning documents. Earlier in 2021, the Issuer deliberated a new plan to protect its local environment (including natural or semi-natural ecosystems, landscapes and non-artificialised environments such as waterways, water bodies, wetlands, woodlands, agricultural areas, but also the more diffuse presence of "nature in the city" integrated into the urban environment). Métropole de Lyon has forwarded the meeting minutes related to the discussions on the scope of this plan to V.E and we consider that it includes pertinent identification, prevention and compensatory measures. It also covers a range of comprehensive indicators to monitor the progress of the upcoming plan such the rhythm of annual artificialisation (in hectares), number of restored corridors, and the metropolitan shade area/number of trees planted/number of species planted. Métropole de Lyon aims to avoid the artificialisation of agricultural land, by protecting the latter through the Locan Urban Planning Scheme voted in 2019 ("PLU-H"), which puts agricultural lands in "category A", which means that it aims to preserve these areas while authorising the management of existing buildings other than those linked to farming. Projects of limited size (and delimited by the graphic documents of the regulation) mainly concern hamlets and shared gardens. In certain instances, Métropole de Lyon has to follow the Protection of Peri-urban and Agricultural Areas ("PENAP") policy, which is stricter. PENAP has made it possible to create intervention perimeters to protect agricultural and natural areas from urbanisation in the long term. We consider that Métropole de Lyon has a particularly strong risk management strategy in place.

Eco-Design and End-of-Life Decommissioning

Métropole de Lyon carries out building dismantling operations according to a selective process which aims to recycle almost all of the separated elements (crushing of concrete, separation of polluted materials, wood, steel, aluminium, plaster, PCV etc) and undertakes preliminary visits with companies in light of reusing materials in other construction operations. All biomass heating plants supplying Métropole de Lyon’s heating networks are financed in part by the "Fonds Chaleur" financial support scheme managed by the Lyon Ecological Transition Agency (ADEME). To benefit from these subsidies, each project must be the subject of a biomass supply plan, which must be validated by the prefecture of the region concerned. The Issuer has stated that biomass feedstocks will be limited to sources such as agricultural or forestry residues that do not deplete existing terrestrial carbon pools or compete with food production, following the criteria set by ADEME®. V.E lacks visibility on systematic procurement criteria set for some eligible categories and the decommissioning plans put in place by the Métropole de Lyon for all assets.

Social Risks

Human Rights

The Issuer has a diversity policy in place which covers several areas to promote the integration of every person. A good example of this is its renewed commitment to the integration of people with disabilities, thanks to a new Agreement with the Fund for the Integration of People with Disabilities ("FIPFP") for the years 2020 to 2022. Métropole de Lyon is a signatory of the “Employment, Disability and Public Service Charter: Contributing to making the Auvergne-Rhône-Alpes region an exemplary territory” Convention, which is part of the region’s Prefect proposal to collectively set a new goal to be reached by 2023: achieving a direct employment rate of over 6% for the three levels of civil service in the region, by taking on 2,400 employees who benefit from the employment obligation. In addition, awareness-raising on discrimination-free recruitment was initiated with the representative of the Human Rights Defender in 2019. Earlier in 2021, this work resulted in the publication of a guide "Recruiting without discrimination" ("Recruter sans discriminer"), intended for managers and recruitment officers of the Métropole.

Health and Safety

Métropole de Lyon takes into consideration the prevention of occupational risks by implementing a range of provisions and adapted means to preserve the health and safety of employees, improve working conditions and promote well-being at work. Its H&S policy is based on three levels of prevention: firstly, eliminating or reducing risks by acting on the root causes, and on environmental and organisational determinants of the work activity; secondly, providing workers with the means to face hazards, manage difficult situations and protect themselves; thirdly, taking in charge affected workers and participating in the treatment of a risk which failed to be avoided. As part of this strategy, it has set up a Health, Safety and Working Conditions Register which allows staff to report a situation they believe could lead to an accident, injury or death. It lets staff propose prevention measures and keeps them informed of the subsequent actions taken. Overall, Métropole de Lyon has identified 18


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groups of risks applicable to the people who work for it and on its projects, ranging from asphyxia to falls to activity interference and road hazards. Based on this, it has created a comprehensive training policy, which defines when, who and how to train.

Social and Environmental Factors in the Procurement of Projects

In its deliberation n°2021-0375 of 25 January 2021, the Council of Métropole de Lyon determined the main orientations of the scheme for the promotion of responsible purchasing (SPAR) which the community wishes to adopt. While no such document has yet been adopted by the Council, the Issuer has decided to draw up an action plan, a sort of operational roadmap that will be adopted at the end of this year. For a roadworks contract, a selection criterion that allows the analysis of solutions applied to the worksite to limit the ecological impact, particularly with a view to optimise recycling and integrating new organo-mineral bind coatings. Generally speaking, environmental performance conditions may currently already be required of suppliers, including, (i) in the context of work contracts, the choice of construction materials and types of equipment with regard to their life cycle and energy consumption, the use of site machinery equipped with devices to limit noise, smoke, or dust emissions, the disposal of waste for recycling, and the prohibition of the discharge of polluting products; (ii) in service contracts, the use of less polluting modes of transport and limitation of travel; (iii) in suppliers’ contracts, the eco-design of products or the delivery method. The Issuer has communicated that 85% of contracts in 2020 included a clause or selection criterion related to sustainable development in 2020. V.E wishes to emphasise the Issuer’s endeavours, while disclosing that formalised commitments and internal requirements in this regard are not in place at this point in time.

Stakeholders and Local Communities

Métropole de Lyon’s insurance department has a specific mechanism in place regarding compensation-type claims, which aims to insure the Métropole’s main risks, manage claims, exercise recourse following such claims and implement preventive actions. A system has been set up whereby claims from third parties go through the “Toodego” platform\(^{20}\), through the contact centre via telephone or by summons via their insurer. This is also available ahead of projects, for stakeholders to voice concerns.

Business Ethics

An internal control and risk management mission will be set up on December 1\(^{st}\), 2021 to provide the Métropole with the best possible support on these issues. In the meantime, the Issuer’s legal services keep an updated register of deportations which summarises the situations of conflicts of interest identified. This tool makes it possible to organise the deportation of elected representatives, for example during deliberative assemblies when the items on their agendas will require it. We acknowledge Métropole de Lyon’s upcoming mission, which is absolutely relevant. However, the Issuer does not have identification and mitigation strategies in place at the time of this SPO, which undermines its management of this risk.

\(^{20}\) https://www.toodego.com/signaler/
Management of ESG Controversies

As of today, Métropole de Lyon faces two stakeholder-related ESG controversy, linked to three of the six domains we analyse:

- Environment, in the criterion of "local pollution";
- Community Development, in the criterion of "social cohesion";
- Procurement and services, in the criterion of "corruption".

**Frequency**: The controversies faced are considered "isolated"; less frequent than the sector average.

**Severity**: The severity of the case, based on the analysis of the impact on both the Issuer and its stakeholders, is considered "high"; in line with the sector.

**Responsiveness**: Métropole de Lyon is considered overall "reactive"; in line with the sector.

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21 VE scale of assessment: Isolated / Occasional / Frequent / Persistent.
22 VE scale of assessment: Minor / Significant / High / Critical.
23 VE scale of assessment: Non-communicative / Reactive / Remedial / Proactive.
METHODOLOGY

In our view, Environmental, Social and Governance (ESG) factors are intertwined and complementary. As such they cannot be separated in the assessment of ESG management in any organisation, activity or transaction. In this sense, we provide an opinion on the Issuer’s ESG performance as an organisation, and on the processes and commitments applicable to the intended issuance.

Our Second Party Opinions (SPOs) are subject to internal quality control at three levels (Analyst, Project Manager and Quality Reviewer). If necessary, this process is complemented by a final review and validation by the Expertise Committee and Supervisor. A right of complaint and recourse is guaranteed to all companies under our review.

COHERENCE

Scale of assessment: not coherent, partially coherent, coherent

This section analyses whether the activity to be financed through the selected instrument is coherent with the Issuer’s sustainability priorities and strategy, and whether it responds to the main sustainability issues of the sector where the Issuer operates.

ISSUANCE

Alignment with the Green and/or Social Bond Principles

Scale of assessment: Not aligned, Partially aligned, Aligned, Best Practices

The Framework has been evaluated by Moody’s ESG Solutions according to the ICMA’s Green Bond Principles - June 2021 (“GBP”) and the Social Bond Principles - June 2021 (“SBP”) and on our methodology based on international standards and sector guidelines applicable in terms of ESG management and assessment.

Use of proceeds

The definition of the Eligible Projects and their sustainable objectives and benefits are a core element of Green/Social/Sustainable Bonds and Loans standards. Moody’s ESG Solutions evaluates the clarity of the definition of the Eligible Categories, as well as the definition and the relevance of the primary sustainability objectives. We evaluate the descriptions of the expected benefits in terms of relevance, measurability and quantification. In addition, we map the potential contribution of Eligible Projects to the United Nations Sustainable Development Goals’ targets.

Process for evaluation and selection

The evaluation and selection process is assessed by Moody’s ESG Solutions on its transparency, governance and relevance. The eligibility criteria are assessed on their clarity, relevance and coverage vs. the intended objectives of the Eligible Projects.

Management of proceeds

The process and rules for the management and the allocation of proceeds are assessed by Moody’s ESG Solutions on their transparency, traceability and verification.

Reporting

The monitoring and reporting process and commitments defined by the Issuer are assessed by Moody’s ESG Solutions on their transparency, exhaustiveness and relevance, covering the reporting of both proceeds’ allocation and sustainable benefits (output, impact indicators).
Contribution to sustainability
Scale of assessment: Weak, Limited, Robust, Advanced

Our assessment of activities’ contribution to sustainability encompasses both the evaluation of their expected positive impacts on environmental/social objectives, as well the management of the associated potential negative impacts and externalities.

Expected positive impact of the activities on environmental/social objectives

The expected positive impact of activities on environmental/social objectives to be financed by the Issuer or Borrower is assessed on the basis of:

i) the relevance of the activity to respond to an important environmental/social objective for the sector of the activity;

ii) the scope of the impact: the extent to which the expected impacts are reaching relevant stakeholders (i.e. the Issuer, its value chain, local and global stakeholders);

iii) the magnitude and durability of the potential impact of the proposed activity on the environmental/social objectives (capacity to not just reduce, but to prevent/avoid negative impact; or to provide a structural/long-term improvement);

iv) for environmental objectives only: the extent to which the activity is adopting the best available option.

ESG risk management for eligible activities

The identification and management of the potential ESG risks associated with the eligible projects/activities are analysed on the basis of Moody’s ESG Solutions’ ESG assessment methodology, international standards and sector guidelines applicable in terms of ESG management and assessment.

ISSUER

Management of Stakeholder Related ESG Controversies

Moody’s ESG Solutions defines a controversy as public information or contradictory opinions from reliable sources that incriminate or make allegations against an Issuer regarding how it handles ESG issues as defined in Moody’s ESG Solutions’ ESG framework. Each controversy may relate to several facts or events, to their conflicting interpretations, legal procedures or non-proven claims.

We reviewed information provided by the Issuer, press content providers and stakeholders (partnership with Factiva Dow Jones: access to the content of 28,500 publications worldwide from reference financial newspapers to sector-focused magazines, local publications or Non Government Organizations). Information gathered from these sources is considered as long as it is public, documented and traceable.

We provide an opinion on companies’ controversies risks mitigation based on the analysis of 3 factors:

- Frequency: reflects for each ESG challenge the number of controversies that the Issuer has faced. At corporate level, this factor reflects on the overall number of controversies that the Issuer has faced and the scope of ESG issues impacted (scale: Isolated, Occasional, Frequent, Persistent).
- Severity: the more a controversy is related to stakeholders’ fundamental interests, proves actual corporate responsibility in its occurrence, and have caused adverse impacts for stakeholders and the company, the higher its severity is. Severity assigned at the corporate level will reflect the highest severity of all cases faced by the company (scale: Minor, Significant, High, Critical).
- Responsiveness: ability demonstrated by an Issuer to dialogue with its stakeholders in a risk management perspective and based on explanatory, preventative, remediating or corrective measures. At corporate level, this factor will reflect the overall responsiveness of the company for all cases faced (scale: Proactive, Remediate, Reactive, Non-Communicative).

The impact of a controversy on a company’s reputation reduces with time, depending on the severity of the event and the company’s responsiveness to this event. Conventionally, our controversy database covers any controversy with Minor or Significant severity during 24 months after the last event registered and during 48 months for High and Critical controversies.

Involvement in Controversial Activities

17 controversial activities have been analysed following 30 parameters to screen the company’s involvement in any of them. The company’s level of involvement (Major, Minor, No) in a controversial activity is based on:

- An estimation of the revenues derived from controversial products or services.
- The specific nature of the controversial products or services provided by the company.

OUR ASSESSMENT SCALES


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<table>
<thead>
<tr>
<th>Scale of assessment of Issuer’s ESG performance or strategy and financial instrument’s Contribution to sustainability</th>
<th>Scale of assessment of financial instrument’s alignment with Green and/or Social Bond and Loan Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>The Instrument’s practices go beyond the core practices of the ICMA’s Green and/or Social Bond Principles and/or of the LMA/APLMA/LSTA’s Green and/or Social Loan Principles by adopting recommended and best practices.</td>
</tr>
<tr>
<td>Robust</td>
<td>The Instrument has adopted all the core practices of the ICMA’s Green and/or Social Bond Principles and/or of the LMA/APLMA/LSTA’s Green and/or Social Loan Principles</td>
</tr>
<tr>
<td>Limited</td>
<td>The Instrument has adopted a majority of the core practices of the ICMA’s Green and/or Social Bond Principles and/or of the LMA/APLMA/LSTA’s Green and/or Social Loan Principles, but not all of them.</td>
</tr>
<tr>
<td>Weak</td>
<td>The Instrument has adopted only a minority of the core practices of the ICMA’s Green and/or Social Bond Principles and/or of the LMA/APLMA/LSTA’s Green and/or Social Loan Principles.</td>
</tr>
</tbody>
</table>

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