Call for Expression of Interest
Global Avoidance Factor Database and associated company-level avoided emissions

CONTEXT

The financial sector will play a key role in driving the economy towards a <2°C warming scenario. To this end, clear and comprehensive information on business climate performance is essential. CO_2e[1] emissions are now increasingly being communicated by companies and the availability of estimated indirect emissions data (scope 2, upstream and downstream scope 3) is increasing. Businesses' efforts to reduce emissions can now be gauged through initiatives such as Science Based Targets initiative (SBTi)[2] or Transition Pathway Initiative (TPI)[3] that provide emissions reduction trajectories for most highly emissive sectors.

The energy transition requires not only moving away from carbon activities but also proposing decarbonized alternatives or solutions to the energy transition. Although solutions are mostly known, no quantifiable and quantified data is now globally available to compare solutions with each other and to allow for a reorientation of financial flows to actors enabling the decarbonisation of the economy. The concept of avoided emissions, sometimes also described as scope 4 of emissions, addresses this issue.

However, unlike induced emissions that benefit from strong methodological bases through Life Cycle Analysis databases, avoided emissions are now calculated in a variable manner by different actors (companies, data providers, financial players), which jeopardizes their credibility and prevents their use at scale.

Several financial Institutions, including Mirova and Robeco, therefore come together through this call for expression of interest to enable:

- The creation of a globally accessible and common database of avoidance factors (Batch 1)

- The estimation of emissions avoided by companies over a wide investment universe – of listed companies first – resulting from the application of the avoidance factor database on the activity data of the companies concerned (Batch 2)

ASK

We ask that interested parties communicate their interest by the 16th of July 2023. Responses should include:

- Indication of interest in Batch 1 (Global Avoidance Factor Database) and/or Batch 2 (Emissions database for a broad listed investment universe);

- Proposal for developing such database(s) including overview of organisation and credentials, indication of timeline, costs and financing needs, resource allocation, proposed approach taken, expected challenges or limitations.

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1 The terms 'carbon', 'CO2e', 'greenhouse gas' systematically refer to all greenhouse gases converted into carbon equivalent tons based on their global warming capacity at 100 years as provided by the IPCC.
2 The Science Based Targets initiative (SBTi) drives ambitious climate action in the private sector by enabling organizations to set science-based emissions reduction targets.
3 The Transition Pathway Initiative Global Climate Transition Centre (TPI Centre) is an independent, authoritative source of research and data into the progress being made by the financial and corporate world in making the transition to a low-carbon economy

BATCH 1: Global Avoidance Factor Database

This database should support all companies and institutions that wish to calculate avoided emissions based on activity data.

Scope. The database will evolve in the level of detail and coverage over time, but should in the first phase seek to capture sectors or economic activities which are the most important to either a) economy-wide decarbonization or b) the scale up and use of the database.

An initial proposal of sectors includes the following areas:
- Power and heat generation, distribution and storage;
- Building and real estate (including building products);
- Transportation (with the electric vehicle value chain being of high priority);
- Mining, metal refining and heavy industry (e.g., steel, cement, chemicals);
- Waste management and recycling;
- Food and agriculture;
- Forestry;
- Apparel and textiles;
- Etc.

For each broad sector, the database should highlight the specific activities or technologies that are enabling emissions avoidance, the solutions.

The value chains of these sectors will also include the relevant mining and chemical contributors.

User types. The database should be designed with three broad use cases in mind to facilitate the production and usage of auditable data on avoided emissions:
- Entities avoiding emissions: public and private corporates contributing to the avoidance of carbon emissions
- Data providers, consultancies or financial institutions calculating the avoided emissions of entities
- Bulk data analysis: academic research, business or financial institutions.

Technical requirements.

The proposal should detail a suggested methodology to calculate avoided emissions and highlight how this methodology can overcome the limitations of previous avoided emissions factors. The methodology should provide detail on, for instance:

- **Life cycle analysis**. Avoidance factors shall be calculated based on a lifecycle approach, taking into account all impacts, in accordance with ISO 14040 and 14044 as well as the GHG Protocol *Product Life Cycle Accounting and Reporting Standard.*

- **Attribution across the entire value chain**. All stakeholders who contribute to the deployment of solutions that enable avoided emissions must be valued. The methodology should provide detail on how emissions will be attributed, and the relative advantages of a variety of approaches. For instance, the allocation of avoided emissions related to a given product or service can be done according to an economic allocation key (% of costs or added value) to reflect for the relative contribution of various stakeholders.

- **Geographic differentiation**. Avoidance factors (and therefore baseline scenarios) for calculating avoided emissions should be detailed by geography as much as possible (with detail provided on the level of geographic granularity and supporting

sources for these geographies). Where this is not possible, the most ambitious baseline should be used to determine the "default" global avoidance factor.

- **Selection of the baseline scenario, using the precautionary principle**. Choose the least advantageous baseline scenario when multiple baseline scenarios are available and consider as much as possible the potential rebound effects associated with deploying observed solutions.

- **Time value of carbon**. A discount rate should be applied to account for the time value of carbon (a ton emitted now is more harmful than a ton emitted later) and uncertainty of estimations over the lifetime of the solution considered[4].

- **The avoidance factor should be related to the products sold by the companies** (e.g. production for an electricity generator, capacity for a wind turbine manufacturer).

This database must be accessible to any organization wishing to use it, either free of charge or on a paid basis. Particular attention will be given to the transparency of the methodology, for example on the lifetime use assumptions or on the reference scenario.

A more precise description of the database's envisaged simplified structure is provided in **Annex 1** of this document.

BATCH 2: Emissions database for a broad investment universe

This database is intended for use by the financial sector to facilitate the optimal allocation of investments in favour of the transition to a low-carbon economy. It must contain the following data points:
- **tCO_2e induced**: total and by scopes (1, 2, 3 upstream and downstream). Data should be consolidated in the following order of priority:

  - third-party audited company-reported emissions
  - company-reported emissions
  - estimated emissions for scopes not reported upon, according to a bottom-up methodology applied to the company's activity data
  - estimated emissions based on statistical ratios when nothing else available

- **tCO_2e avoided**: total, calculated using the avoidance factors from the batch 1 database. For this, business activities data must be gathered to calculate avoided emissions and each ton avoided can then be attributed to a solution or to a solution's value chain.

- **Economic ratios**: induced and avoided emissions normalized by economic indicators of choice based on the needs of the financial institutions that use them (revenue, EVIC or production).

Scope. This database should at a minimum cover an investment universe with the largest global market capitalizations (1,500 companies) and is expected to be rapidly expanded to smaller companies, private companies and green bonds.

We foresee this data may be integrated in an Implied Temperature Rise methodology that considers solutions and all value chains of solutions to the energy transition, both enterprise-wide and for investment portfolios, with a well-documented and transparent aggregation methodology.

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[4] A projected avoidance of 100tCO_2e in ten years with a carbon discount rate of 5% would result in the claim of 61tCO_2e (=100/1.05^10) in the year of reporting.

Contacts

Questions related to this call and expressions of interest should be **sent to**:

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LIST OF SIGNATORIES OF THIS EXPRESSION OF INTEREST

- Mirova
- Robeco
- abrdn
- AXA IM
- Comgest
- Impax AM
- Natixis Investment Managers
- OFI AM
- PGGM
- Railpen
- Sienna Investment Managers
- Smart Pension
- Sycomore AM

HELPFUL RESOURCES

- [Estimating and reporting the comparative emissions impacts of products, WRI Working Paper, January 2019](#)

- [The avoided emissions framework, Mission innovation, September 2020](#)

- [Addressing the avoided emissions challenge, WBCSD chemicals, 2013](#)

- [Guidance on Avoided Emissions: Helping business drive innovations and scale solutions towards Net Zero](#)

ANNEX 1

The following table is an illustration of a simplified structure for the database of avoidance factors.

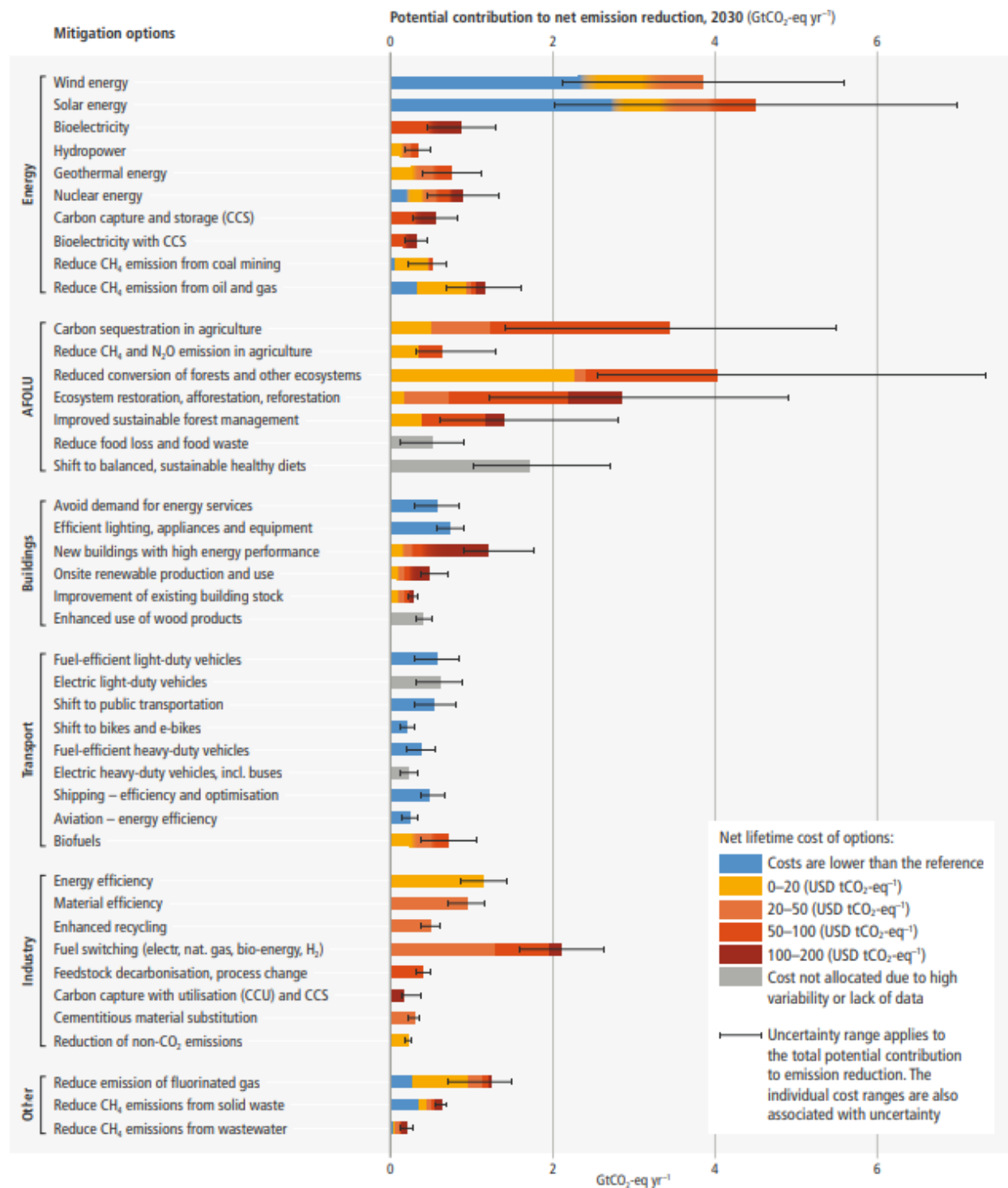| Sector	Sub-sector	Activity	Geography	Year	Baseline scenario	Avoidance factor
Electricity generation	Wind power	Manufacturing of wind turbines	Europe	2023	IPCC NPS	X gCO_2e/kW of capacity
Electricity generation	Wind power	Manufacturing of wind turbines	Asia	...	...	...
Transportation	Passenger transport	Manufacturing of electric vehicles	US	2023	US 2023 average	Y gCO_2/km*passenger
...	...	...	...	...	...	...

ANNEX 2

Figure SPM.7 | Overview of mitigation options and their estimated ranges of costs and potentials in 2030.

Source: IPCC WGIII report

ABOUT MIROVA

Mirova is a management company dedicated to sustainable investment and an affiliate of Natixis Investment Managers. Through conviction management, Mirova's goal is to combine long-term value creation and sustainable development. Pioneers in many areas of sustainable finance, Mirova's talents aim to continue innovating in order to offer their clients solutions with high environmental and social impact. Mirova and its affiliates manage €29 billion as of March 31, 2022. Mirova is a mission-driven company, labeled B Corp*.

The reference to a ranking or a label does not prejudge the future performance of the funds or its managers.

ABOUT ROBECO

Robeco is a pure-play international asset manager founded in 1929 with headquarters in Rotterdam, the Netherlands, and 16 offices worldwide. A global leader in sustainable investing since 1995, its integration of sustainable as well as fundamental and quantitative research enables the company to offer institutional and private investors an extensive selection of active investment strategies, for a broad range of asset classes. As at 31 December 2022, Robeco had EUR 171 billion in assets under management, of which EUR 168 billion is committed to ESG integration. Robeco is a subsidiary of ORIX Corporation Europe N.V. More information is available at www.robeco.com.

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ABOUT NATIXIS INVESTMENT MANAGERS

Natixis Investment Managers' multi-affiliate approach connects clients to the independent thinking and focused expertise of more than 15 active managers. Ranked among the world's largest asset managers[1] with more than $1 trillion assets under management[2] (€1 trillion), Natixis Investment Managers delivers a diverse range of solutions across asset classes, styles, and vehicles, including innovative environmental, social, and governance (ESG) strategies and products dedicated to advancing sustainable finance. Headquartered in Paris and Boston, Natixis Investment Managers is part of the Global Financial Services division of Groupe BPCE, the second-largest banking group in France through the Banque Populaire and Caisse d'Epargne retail networks. Not all offerings are available in all jurisdictions. For additional information, please visit Natixis Investment Managers' website at im.natixis.com | LinkedIn: linkedin.com/company/natixis-investment-managers. Natixis Investment Managers' distribution and service groups include Natixis Distribution, LLC, a limited purpose broker-dealer and the distributor of various U.S. registered investment companies for which advisory services are provided by affiliated firms of Natixis Investment Managers, Natixis Investment Managers S.A. (Luxembourg), Natixis Investment Managers International (France), and their affiliated distribution and service entities in Europe and Asia.

1 Cerulli Quantitative Update: Global Markets 2022 ranked Natixis Investment Managers as the 18th largest asset manager in the world based on assets under management as of December 31, 2021.
2 Assets under management ("AUM") of affiliated entities measured as of December 31, 2022 are $1,151.3 billion (€1,078.8 billion). AUM includes AlphaSimplex Group, LLC ($8.2 billion / €7.7 billion), which was acquired by Virtus Investment Partners, Inc., effective April 1, 2023. AUM, as reported, may include notional assets, assets serviced, gross assets, assets of minority-owned affiliated entities and other types of non-regulatory AUM managed or serviced by firms affiliated with Natixis Investment Managers.

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