

Panorama of sustainable investment initiatives and networks

(version as of 20/06/2019 – prepared by IDFC Secretariat)

Initiatives/approaches/tools signalled with an * are detailed in the Annex.
The present panorama is not exhaustive.

Relevant for financial flow measurement

❖ Investments and financial flows measurement

Driven by article 2.1.c of the Paris Agreement, the question of measuring financial flows that contribute or are aligned with climate but also development goals is a growing field, as evidenced by the following list of existing initiatives:

Climate

- ***UNFCCC Biennial Assessment Report****: provides an overview of climate finance flows, especially those flowing from provider to beneficiary countries. The last report includes a new chapter, on article 2.1.c quantitative monitoring (still at a methodological stage).
<https://unfccc.int/topics/climate-finance/resources/biennial-assessment-of-climate-finance>
- ***CPI Global Landscape of Climate Finance****: presents comprehensive information about which sources and financial instruments are driving investments, and how much climate finance is flowing globally.
<https://climatepolicyinitiative.org/publication/global-climate-finance-an-updated-view-2018/>
- ***OECD Research Collaborative, Tracking finance flows****: suggests a scope for further finance tracking in relation to Article 2.1c and to assess corresponding data availability.
<https://www.oecd.org/env/researchcollaborative/>
- ***I4CE Landscape of Climate Finance in France****: tracks climate investment expenditure and analyses how these expenditures are financed, in France.
https://dev-a45c67.i4ce.org/go_project/landscape-of-domestic-climate-finance/landscape-climate-finance-france/
- ***ODI & WRI Making finance consistent with climate goals****: develops a framework to support governments and non-state actors to identify opportunities to drive action to mobilise and shift finance, track progress against Article 2.1c and increase ambition.
<https://www.odi.org/publications/11253-making-finance-consistent-climate-goals-insights-operationalising-article-21c-unfccc-paris-agreement>
- ***IDFC Green Finance mapping***: a periodic mapping exercise of IDFC member institutions' contributions to green and climate finance. For the climate part, it follows joint MDBs-IDFC principles for tracking mitigation and adaptation finance.
<https://www.idfc.org/green-finance-mapping/>
- ***MDBs Joint Reporting on Climate Finance***: a periodic mapping exercise of MDBs contributions to climate finance, following joint MDBs-IDFC principles for tracking mitigation and adaptation finance.
<https://www.ebrd.com/what-we-do/sectors-and-topics/mdbs-climate-finance.html>

SDG and sustainability

- **OECD Global Outlook on sustainable development finance***: an analytical framework for a holistic and integrated approach to international financing for sustainable development, data and statistical resources.
<http://www.oecd.org/development/financing-sustainable-development/development-finance-topics/global-outlook-on-financing-for-development.htm>
- **G20 Global infrastructure outlook***: forecasts of the investments required to meet the UN Sustainable Development Goals for universal access to electricity, water and sanitation
<https://outlook.gihub.org/>
- **OECD Total official support for Sustainable Development (TOSSD)**: a measure of gross international development finance (i.e. towards developing countries), including public concessional and non-concessional flows from DAC and non-DAC donors, and private flows mobilised by public support. But without any strict “sustainable development” criterion.
<https://www.oecd.org/dac/financing-sustainable-development/tossd.htm>

❖ SDG analysis tools

Driven by investor demand, a number of non-financial (ESG) rating agencies are developing tools to assess the alignment of companies and portfolios with the SDGs specifically. The following initiatives are described in the appendix:

- **MSCI ESG Research Sustainable Impact Metrics***
<https://www.msci.com/esg-sustainable-impact-metrics>
- **ISS-OEKOM'S SDG Sustainability Solutions Assessment***
https://www.issgovernance.com/library/iss-oekom_sustainability_solutions_assessment/
- **Vigeo Eiris's SDG Methodology***
<http://www.vigeo-eiris.com/solutions-for-investors/sustainable-goods-services/>
- **Sustainalytic's Sustainable Development Analytics Methodology***
<https://www.sustainalytics.com/sustainable-development-goals-analytics/>
- **Trucost SDG Evaluation Tool***
<https://www.trucost.com/corporate-advisory/sdg-evaluation-tool/>
- **The Sustainable Development Verified Impact Standard - Verra***
<https://verra.org/project/sd-vista/>

Other initiatives related to sustainable investments

❖ SDG initiatives

The question of sustainable investment is already mentioned by a number of initiatives that often focus on the role of investors and private companies in addressing SDGs. These initiatives mainly consist of institution reporting, by offering a set of standards or by issuing recommendations and principles to reach such standards:

- **ICMA (International Capital market Association): Green Bonds and Social Bond Principles:** network of issuers, investors and bond market participants. ICMA provides a broad frame of reference to evaluate the financing objectives of a given green, social or sustainability bond against the SDGs. <https://www.icmagroup.org/green-social-and-sustainability-bonds/mapping-to-the-sustainable-development-goals/>
- **UNEP-FI Principles for Responsible Investment (PRI)*:** International network of investors working to incorporate environmental, social and corporate governance issues into investment practices across asset classes. The PRI were created as a UN-led initiative. <https://www.unpri.org/>
- **PRI: The SDG investment case*:** This study looks at current links between the principles for responsible investment (PRI) and the SDG framework. <https://www.unpri.org/sdgs/the-sdg-investment-case/303.article>
- **UNEP-FI Principles for Responsible Banking (PRB):** the same way as PRI (principles for responsible investment) for investors, align banks with society's goals as expressed in the SDGs and the Paris Climate Agreement. They set the global benchmark for what it means to be a responsible bank, and provide actionable guidance. To be formally launched at UNSG Summit in September 2019 in NY. <https://www.unepfi.org/banking/bankingprinciples/>
- **MSCI & OECD: Institutional Investing for the SDGs :** a temporary working group for discussion around investment options and the potential role of institutional investors in achieving SDGs. Developed a proof-of-concept illustration of an index for institutional investors in public equity markets that targets SDG needs. <https://www.msci.com/www/blog-posts/aligning-portfolios-with-un/01182959767>
- **Impact management Project:** An impact investing practitioner community of over 2,000 organizations to share best practices and build norms on technical topics for impact measurement, reporting, and improving impact performance. Has been partnering since September 2018 with the UNDP to create the “**SDG Impact**” to advance a unified SDG-impact standard for investors and enterprises and therefore authenticate SDG-enabling investment (UNDP-managed “SDG impact Seal”). <https://impactmanagementproject.com/>
- **OECD: SDG tracker:** An open-source algorithm to quantify the contribution of any financial institution to the various SDGs, tapping into available unstructured information (financial and corporate social responsibility reports, NDB project descriptions, etc.). <https://www.oecd.org/sdd/measuring-distance-to-the-sdgs-targets.htm>

❖ ESG initiatives

Other initiatives come from the wider field of environmental, social, and governance principles (ESG). Although they do not necessarily refer directly to the SDGs, their scopes often cover all or part of the SDGs objectives and they deserve to be considered as inspiration for more SDG-oriented approaches:

- **Task Force on Climate-related Financial Disclosures (TCFD):** a task force established by the Financial Stability Board to develop voluntary, consistent climate-related financial risk disclosures for use by companies when providing information to investors, lenders, insurers and other stakeholder. <https://www.fsb-tcf.org/>

- ***UN Global Compact:*** ten corporate sustainability principles for long-term success covering the areas of human rights, labour, the environment and anti-corruption.
<https://www.unglobalcompact.org/>
- ***European Sustainable Investment Forum (EuroSIF):*** the leading European sustainable and responsible investment organization, whose mission is to promote sustainability through European financial markets. Different regions have their own local SIF.
<http://www.eurosif.org/>
- ***Global Reporting Initiative (GRI):*** an international organization that develops and publishes sustainability reporting standards and measures for global companies. It states that 92% of the world's largest 250 corporations report on their sustainability performance.
<https://www.globalreporting.org/Pages/default.aspx>
- ***UNEP-FI Principles for Sustainable Insurance (PSI):*** launched at the 2012 UN Conference on Sustainable Development, the UNEP-FI PSI serve as a global framework for the insurance industry to address environmental, social and governance risks and opportunities.
<https://www.unepfi.org/psi/>
- ***The Equator Principles (EPs):*** a risk management framework, adopted by financial institutions, for determining, assessing and managing environmental and social risk in projects. It is primarily intended to provide a minimum standard for due diligence and monitoring to support responsible risk decision-making.
<https://equator-principles.com/>
- ***Climate Disclosure Standards Board (CDSB):*** an international consortium of business and environmental non-governmental organizations (NGOs) set up to promote greater alignment between natural and financial capital through disclosure standards, research and advocacy.
<https://www.cdsb.net/>
- ***Global Impact Investment Network (GIIN):*** the major community of practice of Impact Investment actors, dedicated to increasing the scale and effectiveness of impact investing around the world. Provides a database of impact investment funds and products, performance metrics, educational resources, and research.
<https://thegiin.org/>
- ***EU taxonomy for sustainable activities:*** a classification tool to help investors and companies analyze the sustainability of potential investments and engage strategic engagement, on sustainability.
https://ec.europa.eu/info/publications/sustainable-finance-teg-taxonomy_en

Appendix

❖ UNFCC Biennial Assessment Report

● The Biennial Assessment of UNFCC

The Conference of Parties' Standing Committee on Finance (COP SCF) measures reports and verifies the support provided to developing countries through the Financial Mechanism of the Convention. As part of its mission, the SCF produces a biennial assessment (BA) of climate finance flows. This BA provides an overview of climate finance flows from provider to beneficiary countries. It is carried out every two years, the 2018 edition reporting on 2015 and 2016 flows. In addition to presenting the climate finance composition and purposes, it also explores their effectiveness, finance access, and ownership and alignment of climate finance with beneficiary country needs and priorities related to climate change. It also provides information on recent developments in the measurement, reporting and verification of climate finance flows. The BA reports all results as well as the methods, metrics, data sets, stocks and considerations for integration.

● Results

The BA finds estimates that high-bound climate finance amounted to US\$ 681 billion in 2016. These 681 billion are invested in various climate-related sectors:

- US\$ 269.5 invested in renewable energy
- US\$ 257.8 invested in energy efficiency
- US\$ 105.8 invested in sustainable transport
- US\$ 47.5 invested in other public sectors
- US\$ 67.0 domestic climate-related public investment (including the results of I4CE's estimation in France (\cite I4CE)

Out of these 671 billion UNFCC identified US\$ 74.5 billion flows to non-Annex I Parties. Their sources are distributed as follows:

- US\$ 38 billion from climate specific finance flows from Annex II Parties to non-Annex I Parties reported in biennial reports
- US\$ 2.4 billion from UNFCC funds and multilateral climate funds
- US\$ 25.5 billion from multilateral development banks (MDBs)
- US\$ 15.7 billion from private financed

● Methodology, challenges and limitations

The BA estimates the finance flows using a broad set of data sources. Each source's own methodology is evaluated and their inclusion in the assessment are justified. The main data sources of the 2018 BA are:

- Climate Policy Initiative multiple sources
- IEA Energy Efficiency Markets Reports & CPI
- IEA World Energy Investment Report
- Annex II Party Biennial Reports
- Climate public expenditure and institutional reviews (UNDP)

- I4CE
- IDFC Green Finance Mapping reports
- MDB Joint Reports
- OECD

In order to prevent double counting from different level of finance, the BA focuses on primary finance, which is finance for a new physical item or activity. UNFCC faced data uncertainty and data gaps challenges in collecting, aggregating and analysing information from these diverse sources.

Uncertainties are related to the data on domestic public investments, caused by the lack of geographic coverage, differences in the way methods are applied, significant changes in the methods for estimating energy efficiency over the years, and the lack of available data on sustainable transport and other key sectors. Uncertainties also arise from the lack of procedures and data to determine private climate finance and methods for estimating adaptation finance.

Information on sources and instruments for finance in public mass transit remains unreported in numerous countries. High quality data on private investments in mitigation and finance in sectors such as agriculture, forests, water and waste management are particularly lacking. In particular, adaptation finance estimates are difficult to compare with mitigation finance estimates due to the former being context-specific and incremental, and more work is needed on estimating climate-resilient investments.

❖ **Global Landscape of Climate Finance – CPI**

● **The 2018 updated Global Landscape of Climate Finance**

Every year since 2012, the Climate Policy Initiative (CPI), an independent, non-for-profit organization, has been undertaking an overview of climate finance. This overview aims at comprehensively tracking domestic and international investment from both the public and private sectors in climate-related activities.

The 2018 updated view of Global Climate Finance provides a comprehensive assessment of annual climate finance flows with data from 2015 and 2016. The report also updates a five-year trend analysis on sources and composition of low-carbon and climate resilient finance flows to identify trends, gaps and opportunities to scale up investment.

● **Key findings**

CPI estimates global climate finance flows to US\$ 472 billion for 2015 and US\$ 455 billion for 2016, an average of US\$ 463 billion over the two years. These climate investments are composed of a majority of private investments: 54% of climate finance flows comes from project developers, corporations and commercial banks.

The vast majority of investments are spent domestically. 81% climate finance was spent domestically, with a higher share of private investments at 63%. Developing countries are the main destination of these investments, accounting for 58% of domestic and international climate investments through notably National Development Finance Institutions (DFIs).

- **Methodology**

The methodology and data sources used by CPI are similar to the one used by UNFCCC for their biennial assessment. While UNFCCC focuses mostly on international flows, CPI provides more information concerning domestic investments. Domestic investments are however scattered with unequal availability and quality of information. CPI domestic figures are drawn from the following sources:

- For France: I4CE, ADEME, French Ministry of Environment, Trésor
- For Germany: Institute for Climate Protection, Energy and Mobility (IKEM)
- At subnational cities and regions level: OECD, UN Environment, World Bank
- To be included in next global landscapes: Morocco (I4CE, Government and local financial institutions), Poland (I4CE, Wise Europa, New Climate Institute), Czech Republic (Czech Technical University in Prague, Ikem), Latvia (Riga Technical University, Ikem), Indonesia (CPI, Indonesia Ministry of Finance), Kenya (CPI, AECOM, Baker McKenzie)

❖ **OECD Research Collaborative: Tracking climate finance flows**

- **Tracking finance flows**

The OECD Research collaborative is currently writing the Tracking finance flows study in 2019. The scope of the study focuses on tangible fixed assets with a direct and significant impact on GHG emissions (therefore not considering R&D investments). It complements existing finance tracking initiatives, which mostly cover secondary transactions relating to stocks of publicly-traded financial assets (equities and bonds). The objective of this study is to suggest a scope for further finance tracking in relation to Article 2.1c and to assess corresponding data availability.

- **Key findings**

The Research collaborative reaches the conclusion that tracking investments and sources of finance and assessing their consistency with climate mitigation objectives require the availability of comprehensive and granular data. They point out that this is currently only the case for a very small sub-set of the targeted scope: project finance schemes and international development finance, which represent less than 2% of gross-fixed capital formation (GFCF), and limited actors and geographies.

The study also identifies that a main challenge to tracking the consistency of finance with climate objectives is the absence of internationally-agreed approaches for classifying activities as contributing to, undermining, or having no impact on such objectives

Finally, it is highlighted that most initiatives focus on tracking finance for low-GHG activities only, whereas assessing progress towards Article 2.1c requires covering all investments, and in particular the ones that undermine climate mitigation objectives. Accessing data about these is typically more difficult as, in contrast to investments that support climate objectives, investors and underlying finance providers have no incentive to disclose such information on a voluntary basis.

❖ I4CE: Landscape of Climate Finance in France

● Landscape of Climate Finance

I4CE (Institute for climate economics) is a think tank Climate Economics is a think tank that provides public and private decision makers with expertise on economic and financial issues related to the energy and ecological transition. Every year it releases a landscape of climate finance in France.

The Landscape of Climate Finance is a comprehensive study of domestic financial flows in favour of climate and the energy transition in France. The study maps the flows supporting investments leading to GHG mitigation, lists the climate investment expenditure and analyses how these investments are financed. The study is carried out every year since 2014; results are compared from year to year and assessed in comparison to projected investments needs to achieve national GHG reduction.

● Key findings

According to the landscape study, climate investments in France are increasing and reached 41.2 billion euros in 2017. France spent nearly 20 billion euros on energy efficiency, 6.6 billion in renewable energies, and 10 billion euros for sustainable transport and network infrastructure. The landscape also included investment in development and extension of the nuclear fleet, evaluated at 2.8 billion euros. The study also identified 2 billion euros investments in forestry and non-energy industrial processes.

● Methodology

The landscape of domestic climate finance aggregates publicly available information on low-carbon investments and their financing in France between 2011 and 2017. In the agricultural and industrial sectors, lack of data limits the assessment of current investments and therefore makes it impossible to present a complete snapshot for France. The methodology, sources and scope of the study evolves every year and results from previous edition are updated with the changes introduced. The French landscape study uses the French National Low-carbon Strategy (SNBC) as its principal reference document.

Climate investment expenditures and finance flows are documented using data gathered directly from existing reports and studies, or estimated based on hypothesis. The main sources used for the landscape are listed below:

- National accounts of the building sector
- National accounts of the transport sector
- National public budget, including fiscal spending and cross-policy documents detailing government funding for climate action
- Annual studies conducted by the ADEME
- Studies from the National Statistical Institute (INSEE)
- Annual statistics of the Union of Social Housing Companies
- Reports from the Energy Regulation Commission

❖ ODI & WRI: Making finance consistent with climate goals

- **Insights for operationalising Article 2.1c of the UNFCCC Paris Agreement**

The ODI and WRI paper on making finance consistent with climate goals aims at identifying opportunities to drive action to mobilise and shift finance, track progress against Article 2.1c and increase ambition of government as Parties to the Paris Agreement. Their work was developed in cooperation with UNFCCC and their approach to track climate finance but also covers a broader scope than the UNFCCC approach.

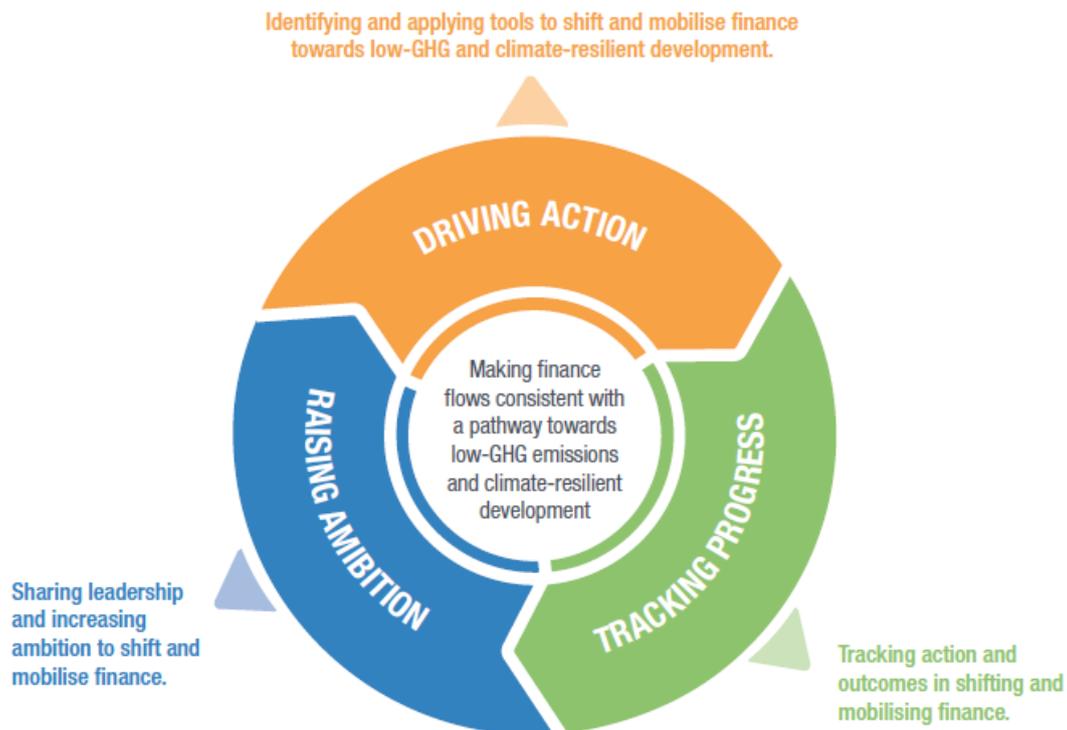
To limit the scope of their study, ODI & WRI focused on financial policies and regulations linked to the finance specific goal of Article 2.1c.

- **Recommendations**

The key steps to support the achievement of objective Article 2.1c are identified by the study. The first one is to clarify and build upon provisions of the Paris Agreement to more clearly support action that countries can take towards article 2.1c through the Global Stocktake, nationally determined contributions (NDCs) and enhanced transparency. Furthermore, key actors should be mobilized outside the circle of UNFCCC parties. These actors can be public finance institutions, investors and business groups that can contribute to Article 2.1c. The framework for operationalising Article 2.1c of the Paris Agreement relies on 3 pillars: driving action, raising ambition and tracking progress. These pillars and their objectives are summarized in the figure? from ODI & WRI report:

- **Potential approaches for tracking progress towards Article 2.1c**

The third pillar concerning tracking progress towards Article 2.1c is the most relevant to the aim of our project. ODI & WRI present a taxonomy of tools, examples of metrics and current potential sources of information to track government effort to make finance consistent with low GHG emissions. The tools covered are financial policy and regulation, fiscal policy and public budgets, public finance, and information instruments. For each of these tools, the report also presents key current examples of action taken by institutions to track achievement of Article 2.1c.

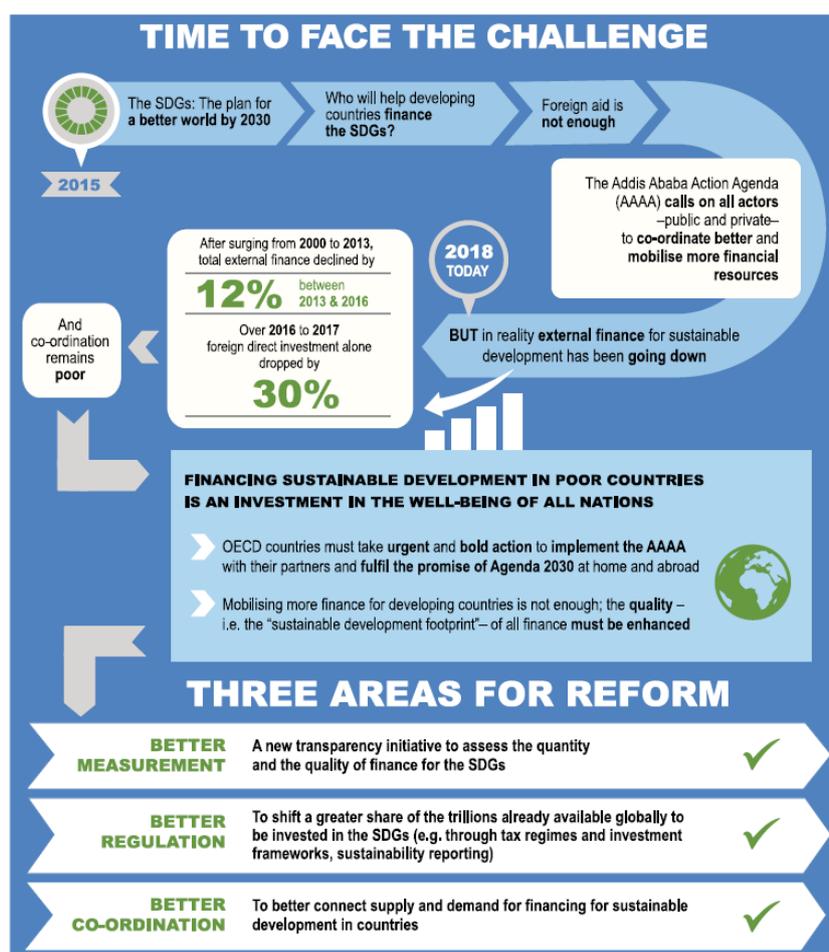


❖ Global Outlook on sustainable development finance

The Global Outlook of Financing for Sustainable Development is an initiative by the OECD that aims at defining the needed to implement the Addis Ababa Action Agenda (AAAA) and the pledges of Agenda 2030 in developing but also developed countries.

The Global Outlook identifies three areas for reform:

- Measurement: better indicators and tools to measure financial flows - and their coherence with the SDGs - are needed. Measurement must develop beyond aid to all flows from all actors, and to tracking SDGs specific flows. For instance, a dollar invested in polluting activities cannot be counted the same way as a dollar invested in clean energy. The report advocates for a new transparency initiative as a first step to tackle these gaps.
- Create incentives for a larger proportion of total current finance flows to be invested in sustainable development: promote high standards; prevent tax evasion and avoidance; develop better policy coherence for sustainable development through tax regimes and investment frameworks; reduce the cost of remittance transfers.
- Improve the co-ordination of various actors involved in financing for sustainable development. Country development plans need to be better associated with available financing. Diagnostic tools and guidelines are already available to help design such strategic plans and find resources, but co-ordination in countries remains little. The Global Outlook asks donors to provide more coherent support to countries.



❖ PRI & PWC: The SDG investment case

The Principles for Responsible Investment (PRI) is an international network of investors working together to put the six principles of responsible investments into practice. The principles and the PRI were created as a UN-led initiative. The six principles introduced by PRI are:

- to incorporate ESG issues into investment analysis and decision-making processes
- be active owners and incorporate ESG issues into ownership policies and practices
- seek appropriate disclosure on ESG issues by the entities in which we invest
- promote acceptance and implementation of the principles within investment industry
- work together to enhance effectiveness in implementing principles
- Report on activities and progress towards implementing principles.

The PRI & PWC DSG investment case identifies five links between SDGs and responsible investments:

- The SDGs are the globally agreed sustainability framework can support investors in understanding the sustainability trends relevant to investment activity and their fiduciary duties.
- Large institutional investors can be considered “universal owners” their highly-diversified, long-term portfolios are sufficiently representative of global capital markets that they effectively hold a slice of the overall market, making their investment returns dependent on the continuing good health of the overall economy. They can therefore improve their long-term financial performance by acting in such a way as to encourage sustainable economies and markets through the SDGs achievement.
- Achieving the SDGs will be a key driver of global economic growth: over the long term, economic growth is the fundamental driver of the growth in corporate revenues and earnings, which in turn drive returns from equities and other assets. The SDGs aim to create a viable model for the future in which all economic growth is achieved without compromising our environment or placing unfair burdens on societies.
- In the future, a significant proportion of currently external costs such as environmental damage or social disruption might be forced into companies’ accounts. The uncertainty surrounding the timing and extent of this internalisation is a critical component of the overall risk landscape facing investors; SDGs can therefore represent a micro-risk framework.
- If investors believe that providing solutions to sustainability challenges offers attractive investment opportunities, they can implement investment strategies that explicitly target SDG themes and sectors. In many cases investors are implicitly taking these factors into account already, but not articulating it: the SDGs give a common language with which to shape and articulate such an investment strategy.

❖ Global infrastructure outlook

• The global infrastructure outlook

The global infrastructure outlook is a detailed review and analytical tool that aims at presenting governments and business the infrastructure investment requirement worldwide over the next 25 years. The report presents current and forecasted infrastructure spending and need for the need for seven sectors across 50 countries (including France). These seven sectors are:

- Roads
- Rail
- Airports
- Ports
- Telecoms
- Electricity
- Water

The reports is the result of a data collection from 50 separate datasets and the development of econometric models to produce estimates for countries and sectors where no data could be identified.

• Methodology

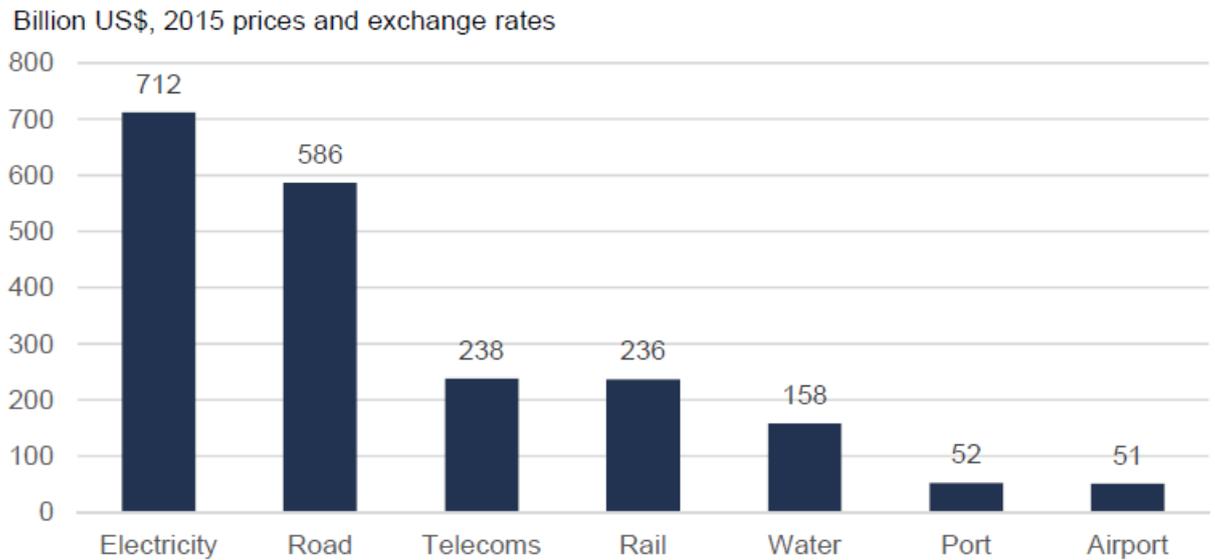
In order to evaluate the investment gap for each country and sector, the study focuses on the difference between the current infrastructure spending trends and expected development with estimated investment need forecast based on the investment that would occur if countries were to match the performance of their best performing peers.

To overcome the lack of single consistent source of infrastructure investment data by country and sector, the authors of the outlook compiled a new dataset based on around 50 sources and estimations to fill gaps. A hierarchy of sources is introduced from best data to estimations filling a lack of data:

- 1) Data from international sources: OECD, INFRALATAM, Eurostat, etc.
- 2) Data from national statistics agencies on infrastructure or fixed capital investment in the relevant sector
- 3) For markets where a single dominates, company accounts data on investment in fixed assets by that provider
- 4) World Bank Private Participation in Infrastructure data
- 5) When no data identified: estimation using econometric model with a perpetual inventory model to evaluate historic spending

• Results

The study estimates the global infrastructure spending across the 7 sectors studied amounted to \$2.3 trillion in 2015. It therefore accounts for around 3 percent of world GDP and 12 percent of total investment. Most of these investments are made in two sectors, namely electricity and roads.



Source: Oxford Economics

Average annual investment by sector

SDG consistency evaluation tools

❖ MSCI ESG Research Sustainable Impact Metrics

MSCI ESG Research's Sustainable Impact Metrics is designed to identify companies that currently offer products or services that address at least one of the major social and environmental challenges as defined by the UN Sustainable Development Goals. Intended as a positive screen, it is designed to highlight companies that are deriving sales from products or services that may have a positive impact on society and the environment.

MSCI developed a sustainable impact taxonomy using the UN Sustainable Development Goals as reference points. The 17 SDGs applicable to a broad set of stakeholders are aggregated in 5 actionable impact themes, applicable to institutional investors:

- Natural Capital: for SDGs 14 (life below water), 15 (life on land) and 12 (responsible consumption and production)
- Governance: for SDGs 16 (peace, justice and strong institutions) and 17 (partnerships)
- Basic Needs: for SDGs 1 (no poverty), 2 (zero hunger), 3 (good wealth and well-being), 6 (clean water and sanitation) and 11 (sustainable cities and communities)

- Empowerment: for SDG 4(quality education),5(gender equality),8(decent work and economic growth),10(reduced inequalities) and 9(industry, innovation and infrastructure)
- Climate Change: for SDGs 13 (climate action) and 7 (affordable and clean energy)

A taxonomy was then developed to link investments in solutions to achieve the SDGs with the 5 actionable impact themes. For example, the theme basic need was associated with investments to improve nutrition, major diseases treatment, sanitation, affordable real estate and access to energy and water. Products and services are then evaluated in light of this taxonomy presented below:

Pillar	Themes	Categories
Environmental*	Climate Change	1. Alternative energy 2. Energy efficiency 3. Green building
	Natural capital	4. Sustainable water 5. Pollution prevention
Social	Basic needs	6. Nutrition 7. Major Disease Treatment 8. Sanitation 9. Affordable Real Estate
	Empowerment	10. SME Finance 11. Education

* note that the environmental metrics are based on MSCI ESG Research Cleantech Metrics

- **MSCI ESG Controversies**

MSCI ESG Controversies assess controversies concerning the negative environmental, social, and/or governance impact of company operations, products and services. The evaluation framework used in MSCI ESG Controversies is designed to be consistent with international norms represented by the UN Declaration of Human Rights.

- **Security Selection**

The Parent Index serves as the universe of eligible securities for the Index. The MSCI ACWI Sustainable Impact Indexes is constructed on the MSCI ACWI Index “Parent Index”.

To be eligible for inclusion in the Sustainable Index, companies must meet all of the below criteria:

Companies must generate cumulatively at least 50% sales from one or more of the eleven sustainable impact categories as defined by MSCI ESG Research Sustainable Impact Metrics

Companies must maintain all of the following minimum ESG standards:

- **MSCI ESG Controversies:** Companies must not have faced ESG controversies as defined by an MSCI ESG Controversy Score of 0, 1 and 2 respectively
- **MSCI ESG Ratings:** Companies must have an MSCI ESG Rating greater or equal to BB
- **Tobacco:** Companies must not generate more than 10% sales from tobacco production

- **Alcohol:** Companies must not generate more than 10% sales from alcohol production
 - **Predatory lending:** Companies must not be involved in predatory lending practices. MSCI ESG Research defines involvement in lending practices as those companies that provide products and services associated with certain controversial lending activities and those companies that have been subject of alleged lending controversies
 - **Controversial Weapons:** Companies must not be involved in manufacture of Cluster munitions, Landmines, Blinding lasers, White phosphorus, Non-detectable fragments, Depleted uranium and Biological & chemical weapons
 - **Nuclear Weapons:** Companies must not be involved in manufacture of Nuclear weapons warheads & missiles, Intended use components, Nuclear exclusive delivery platforms and Nuclear weapons support services
 - **Conventional Weapons :** Companies must not generate more than 5% from conventional weapons and systems
 - **Civilian Firearms:** Companies must not be involved in manufacture of semi-automatic civilian firearms or should not generate more than 5% revenue from civilian firearms production
- **MSCI SDG specific evaluation tool:**

The need for a more thorough analysis and closer link to SDGs led MSCI to develop a new assessment tool for products and services but also operations which had been overlooked in the first SGD tool focusing solely on products and services.

This second assessment tool does not aggregate SDGs together. On the other hand, it relies on a set of 10 to 15 different indicators for each SDG in order to rate products and services and operations net SDG alignment, providing for each SDG:

- Positive products and services impact: Revenue from aligned products
- Positive operational impact: Beneficial practice and quantitative improvements
- Negative products and services impact: Revenue from misaligned products
- Negative operational impact: Inherently intensive operations, negative impacts, worsening performance

Indicators are determined using the database developed by the SDG compass, a methodology developed by the UN global compact, GRI and the World Business Council for Sustainable Development (WBCSD) to support companies in aligning their strategies with the SDGs and in measuring and managing their contribution.

A company level net alignment is then given for each SDG ranging from most misaligned to most aligned (with 5 levels) by aggregating positive and negative contributions to each SDGs. For example if more than 20% of revenue comes from aligned products, the company has put in place good practices or declining negative impacts and in the meantime in terms of negative impact, no revenue is driven from misaligned products or services and no serious controversy has been identified then the company will be rated most aligned for the corresponding goal.

❖ ISS-OEKOM's SDG Sustainability Solutions Assessment

The Sustainability Solutions Assessment provides investors with information regarding the impact of a company's product and service portfolio towards the UN Sustainable Development Goals (SDGs). It contains both an aggregate assessment in the form of the Sustainability Solutions Score as well as more detailed information and data points regarding specific sustainability objectives.

As the UN SDGs primarily target states and the public sector, not all of the goals are relevant for companies. For this reason, ISS-Oekom defined a total of 15 sustainability objectives which are closely aligned with the SDGs (7 social objectives and 8 environmental objectives):

- Alleviating poverty
- Combating hunger and malnutrition
- Ensuring health
- Delivering education
- Attaining gender equality
- Providing basic services
- Safeguarding peace
- Achieving sustainable agriculture and forestry
- Conserving water
- Contributing to sustainable energy use
- Promoting sustainable buildings
- Optimising material use
- Mitigating climate change
- Preserving marine ecosystems
- Preserving terrestrial ecosystems

These objectives are used to assess companies' product portfolios in terms of their contribution towards sustainable development. For each individual objective, a qualitative analysis is conducted to determine whether a product or service category makes a significant or limited net contribution towards attaining the objective; whether it has neither an explicitly positive nor an explicitly negative impact; or whether the product or service actually acts as a limited or significant obstruction towards attaining the objective. As a result, the positive and negative effects of different product groups may partly cancel each other out within a given objective.



- **The individual product or service assessment is done along five categories**

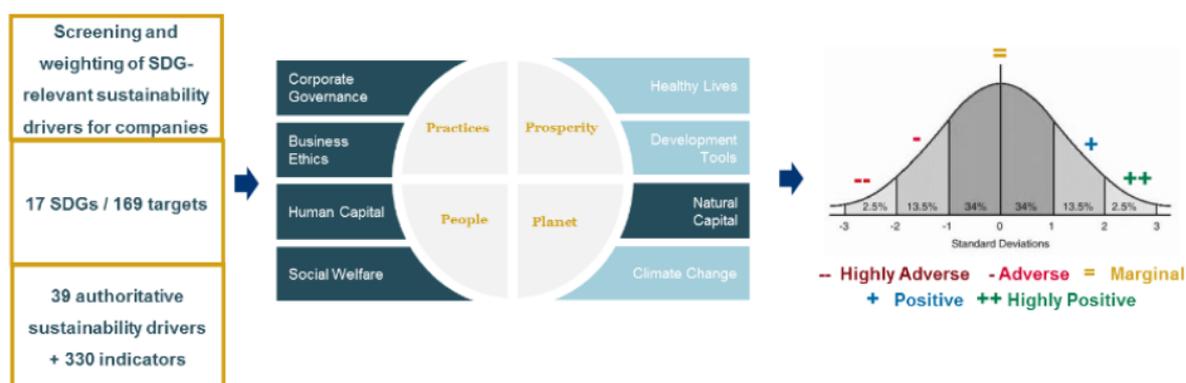
For each of the thus-classified product and service categories, the corresponding revenue percentage is stated. Under the Sustainability Solutions Assessment, ISS-Oekom provides the results of its impact analysis in the form of an overall Sustainability Solutions Score accompanied by a more detailed objective-specific data-set. The score is calculated based on the most measurable objectives identified for each company to allow for a top-level comparison of the sustainability performance of product portfolios.

❖ Vigeo Eiris's SDG Methodology

Vigeo aims to offer a clear reference framework and a precise metric to identify and weigh risks and opportunities with regards to companies and investors' responsibilities towards the SDGs. To do so, they check and balance companies' degree of contribution to the SDGs against their governance, operations and the specific nature and footprint of their product and service using a 5-step methodology:

- **Step 1-Assess companies' level of commitment towards SDGs:** SDGs targets are mapped against Vigeo's 39 sustainability drivers for companies and 330+ indicators weighted by context and risks. Companies are also questioned on their willingness and capacity to integrate their relevant sustainability drivers into strategies and operations. Score for SDG-relevant drivers are consolidated into 5 behaviour-focused SDG topics: Business Ethics, Corporate Governance, Social Welfare, Human Capital and Natural Capital
- **Step 2-Determine companies' levels of performance, ratings and rankings:** Each company is given a score from 0-100 for each behaviour-focused SDG topic. Scores are classified into 5 categories according to a normal distribution curve using the complete Vigeo Eiris research universes as the population, where each band has a width of 1 standard deviation
- **Step 3-Identify sustainable goods and services within companies' offering :** Vigeo Eiris has identified 100+ products and services with strong positive impacts on the SDGs
- **Step 4-Assess a company's level of involvement:** Products and services are grouped into 3 SDG topics: Climate Change, Healthy Lives, and Development Tools. Corporate involvement in each topic is calculated and categorised as None, Minor, Significant or Major
- **Step 5-Rating & ranking:** Rating of companies' impact and contribution to the SDGs by combining behaviour and product & services scores. Companies performances, which are spread in a normal distribution, range from "highly adverse" to "highly positive"

Vigeo Eiris's scoring methodology



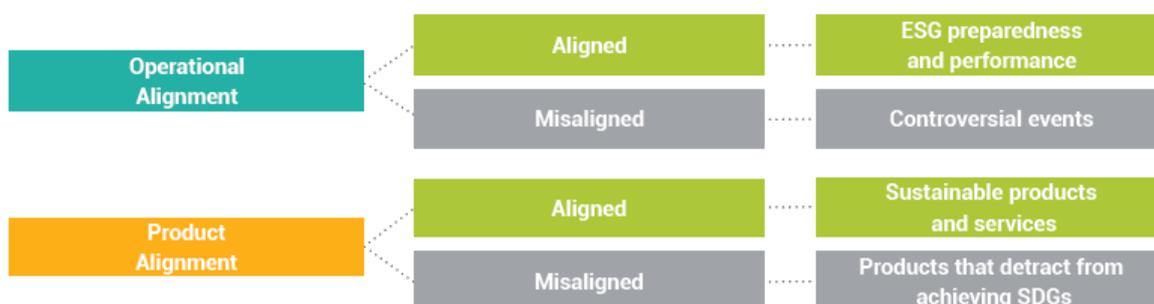
Source: documentation from Vigeo Eiris

❖ Sustainalytic’s Sustainable Development Analytics Methodology

Sustainalytic’s Sustainable Development Analytics enable investors to measure the alignment of their portfolios and individual holdings to the Sustainable Development Goals (SDGs). Their assessment accounts for differences between sectors, and goes beyond a one-dimensional, revenue-based model to consider alignment across the entire value chain – from the company’s operations and supply chain, to its products and services. They also account for broader stakeholder impacts, and both positive and negative alignment.

Approximately 4500 companies covering all major indices have been assessed. They take a value chain approach to their assessment, considering both a company’s operational and product alignment:

- Operationally, company’s preparedness and performance is considered, alongside involvement in controversies.
- On the products side they assess involvement in sustainable product and services (aligned products), like renewable energy, and controversial products (misaligned products), like thermal coal.



The Sustainalytics assessment includes:

- Company level scores per SDG and an overall SDG score
- Portfolio level scores per SDG and an overall portfolio level score (based on the weight of each holding)
- A comparison of a portfolio performance to a benchmark

❖ Trucost's SDG Evaluation Tool

The tool provides a quantitative analysis of corporate performance on the SDGs across the value chain, from raw material inputs to product use and disposal, within the context of a company's geographic operations. The solution has been designed to be used by both corporates and investors, scoring performance for each of the 17 SDGs.

Trucost SDG score for each company will take into account 2 elements:

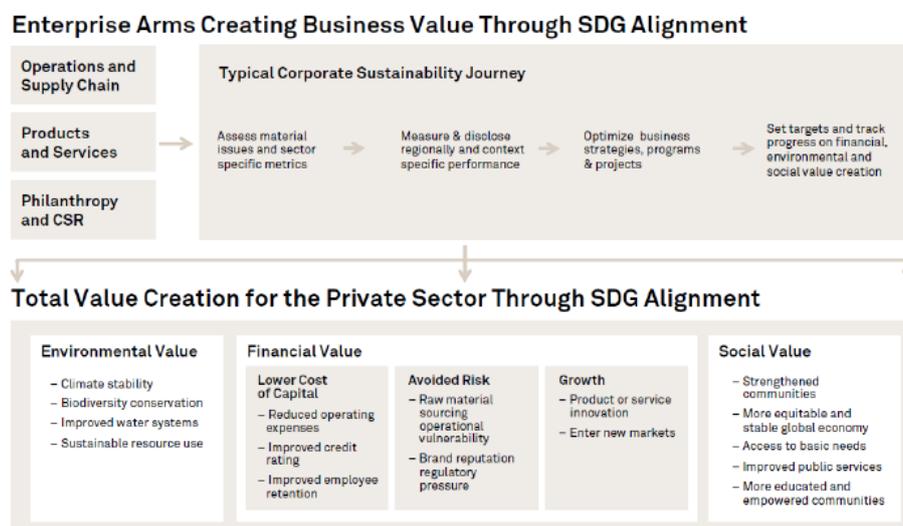
- The general exposure to negative impacts and the processes in place to mitigate these impacts
- The positive impacts, including through R&D and business model

● Negative impacts

Trucost has identified a set of approximately 40 SDG metrics for use in their SDG Evaluation that are representative of corporate exposure to an SDG target through a plausible impact or dependency pathway. These metrics are also compatible with geographic and sector specific exposure modelling with appropriate modelling techniques and data sets available.

● Positive impacts

Trucost assesses the degree to which a company creates positive value for the SDGs by measuring the SDG positive revenue share from products and services categorized as SDG solutions or enablers based on Trucost's taxonomy. The positive impact score also includes the share of R&D spending contributing to the SDGs and the public commitments to transform existing business model to better align with SDGs.



Source: Trucost, as of 2017. Chart provided for illustrative purposes.

Trucost announced findings from the inaugural application of its SDG Evaluation Tool. The 13 companies that participated in the inaugural application generated almost \$233 billion of SDG-aligned business revenues in 2017; equivalent to 87% of their total revenues.

❖ The Sustainable Development Verified Impact Standard, Verra

The Sustainable Development Verified Impact Standard (SD VISTA) is a global standard managed by Verra for the certification of projects that generate verifiable sustainable development benefits. SD VISTA projects must demonstrate how they will advance the Sustainable Development Goals (SDGs) and deliver benefits for people, their prosperity and the planet.

The *Sustainable Development Verified Impact Standard* provides the criteria for project design as well as the criteria for monitoring and assessment of projects and its net impacts. The Sustainable Development Verified Impact Standard is structured hierarchically by principles and criteria. Principles are fundamental goals towards broad sustainability outcomes that incorporate scientific understanding as well as social ethics and values. Criteria are the conditions that must be met in order to achieve the principles.

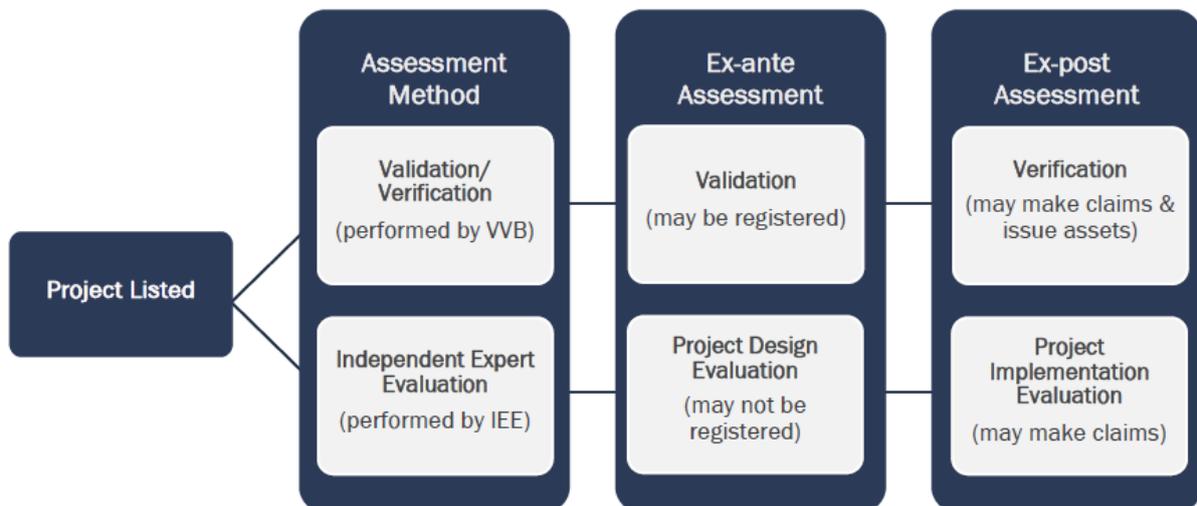
- **Project Design and impact**

Projects shall be designed to meet sustainable development objectives that are appropriate for their sustainable development context. Projects must be designed to generate and maintain benefits during the project's lifetime and after project activities end. Causal chains, which map the cause-and-effect relationships resulting from a project's activities, are used to describe a project's outputs, outcomes and impacts (positive and negative, intended and unintended) for people, their prosperity and the planet.

The project proponent demonstrates net positive well-being impacts for all stakeholders directly affected by their project's activities.

- **SD VISTA project assessment**

The SD VISTA Program provides two methods of project assessment: validation/verification and independent expert evaluation.



❖ Evaluation tools aggregation by SDG themes

Evaluation tool	Number of SDG themes	SDG themes
<i>MSCI Sustainable Impact Metrics</i>	5	<ul style="list-style-type: none"> - Natural Capital - Governance - Basic Needs - Empowerment - Climate Change
<i>ISS-OEKOM'S SDG Sustainability Solutions Assessment</i>	15	<ul style="list-style-type: none"> - Alleviating poverty - Combating hunger and malnutrition - Ensuring health - Delivering education - Attaining gender equality - Providing basic services - Safeguarding peace - Achieving sustainable agriculture and forestry - Conserving water - Contributing to sustainable energy use - Promoting sustainable buildings - Optimising material use - Mitigating climate change - Preserving marine ecosystems - Preserving terrestrial ecosystems
<i>Vigeo Eiris's SDG Methodology</i>	3	<ul style="list-style-type: none"> - Climate Change - Healthy Lives - Development Tools
<i>Trucost SDG Evaluation Tool</i>	9	<ul style="list-style-type: none"> - Climate stability - Biodiversity conservation - Improved water systems - Sustainable resource use - Strengthened communities - More equitable and stable global economy - Access to basic needs - Improved public services - More educated and empowered communities
<i>Comparison with AFD's "Sustainable Development Opinion" mechanism</i>	6	<ul style="list-style-type: none"> - Economic Development - Social well-being and the reduction in social imbalances - Gender equality - Conservation of biodiversity, management of natural environments and resources - The fight against climate change and its impacts - The sustainability of the project's impacts and governance framework