“Applying the EU Taxonomy”: Lessons from the Front Line

Coauthors:
Peter Sweatman (Lead) and Malte Hessenius

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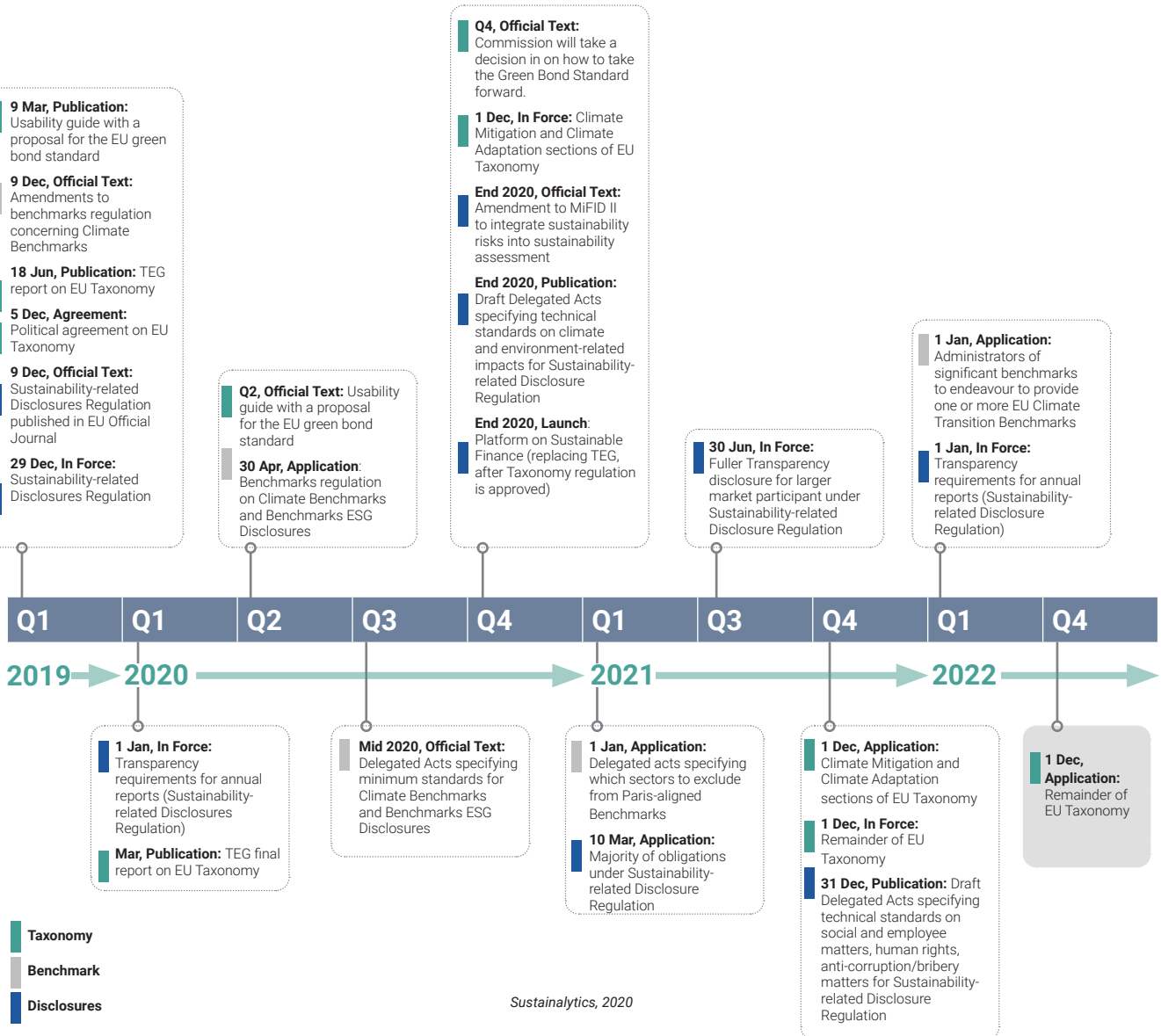
Executive Summary for Policymakers

The EU plans a historic investment of up to €2 trillion in its economy from 2021. These will be provided from the EU Budget (MFF) and recovery funds (via Next Generation EU). This paper shows how the EU Taxonomy is a powerful climate tracking tool, and how it can identify and align public and private investments to recover rapidly and deliver the EU's Green Deal.

- **In July, European leaders launched Next Generation EU (NGEU), a €750 billion EU recovery fund in addition to a €1.074 trillion multi-annual financial framework (MFF) package under negotiation for 2021-2027.**
- **30% of the joint NGEU and MFF budget package is earmarked for climate objectives;** EU expenditure should be consistent with Paris Agreement objectives and with the objective of EU climate neutrality by 2050 and contribute to achieving the Union's new 2030 climate targets.
- **EU budget expenditures also need to be consistent with** the "do no harm" principle of the European Green Deal. Operational guidelines for this principle are needed alongside a necessary exclusion list for fossil fuels.
- **An effective methodology for monitoring climate-spending and its performance** should ensure that the next MFF as a whole contributes to the implementation of the Paris Agreement.
- In this context, the **EU Taxonomy should be used as climate tracking instrument in the NGEU and MFF** to align EU funds, and recovery investments, with the goals of the Paris Agreement and to deliver the EU Green Deal, as:
  - The EU Taxonomy is a proven climate tracking tool that can help identify investments which make a significant contribution to climate mitigation and adaptation.
  - Early applications of the EU Taxonomy's recommended climate contribution thresholds demonstrate the feasibility of how this can be done at the project/ municipal, company and fund level.
- **Existing climate tracking approaches in EU funds (the "Rio Markers") are imperfect and are shown, in cases, to significantly overstate climate contributions, thus undermining the credibility of the EU's climate action commitment. In the three areas which the EU Taxonomy does not yet cover, Rio markers can be applied until the EU Taxonomy has been expanded.**
- **Consequently, reference to the EU Taxonomy as preferred climate tracking tool should be included in the legislation on all financial instruments in the NGEU and MFF, including the regulations on the Recovery and Resilience Fund, the Just Transition Fund/Public Loan Facility, InvestEU et al.**

The paper targets Member States preparing Recovery and Resilience Plans, MEPs and EC officials debating the final details of the EU budget and Next Generation EU, and practitioners from the sustainable finance sector. It is divided into three sections: 1) An introduction to the climate taxonomy challenge; 2) Lessons learned from practical applications of the EU Taxonomy; and 3) A comparison of EU Taxonomy with the Rio Markers for the delivery of climate objectives. The following EU Taxonomy implementation timeline fits well with that of the Recovery and Resilience Plans shown later in this paper. **We show that the key elements of the EU Taxonomy are in place and already it is can be successfully applied in practice.**

EU Taxonomy implementation timeline can support EU recovery investments



Sustainalytics, 2020

1 Defining Green: Introduction to the EU Taxonomy Challenge

The EU Taxonomy is the most robust and advanced framework globally to define "green" in a credible manner and support its practical application. While its regulation is being finalized, the EU Taxonomy has been tested successfully by several public and private actors, including the European Investment Bank and private investors such as BNP Paribas Asset Management, and is found to have an important impact. This is evidenced by the lessons learnt from the real-life application of the technical expert group (TEG) threshold recommendations for climate mitigation and adaptation at a project/municipal-level, company-level and fund level.

Understanding the practical lessons from EU Taxonomy application needs to be embedded in the context of the following three axioms as an introduction:

- **Europe's climate leverage is bigger than its share of global emissions:** European savings, account for 25% of the world's wealth[1], hence investment decisions in Europe will have an outsized impact on global decarbonisation, compared with the 17% of EU's contribution to global greenhouse gas emissions[2]. Similarly, **the EU's NGEU and MFF budget package is providing the second largest stimulus following the COVID19 crisis and thereby setting a benchmark for credible climate action** funding as the basis for a sustainable and resilient recovery. Regarding climate action tracking, a project/municipal or entity focus is important as **Europe's environmental footprint and influence extends beyond its own borders.** Direct greenhouse gas emissions are not the whole story, as 25% of additional CO2e is imbedded in EU imports and international trade[3]. Some important economic activities are responsible for substantial indirect emissions far down their supply chains, like the meat industry – responsible for nearly 15% of global emissions[4], or fashion.

- **There is no practical alternative to a taxonomy:** As Swedish botanist Prof. Carl Linneaus (1707-78, the "father of modern taxonomy") demonstrated in respect of global species, working to resolve complexity through a taxonomy promotes scientific discovery. By implementing a standard naming system for animal and plant species, Linneaus provided an elegant solution to an otherwise chaotic and disorganised scientific literature. **Taxonomies, classification systems and standards require intense technical work, they rely on comprehensive data sets, information and resources and are never finalised** as the world continues to evolve. Yet, without naming and classifying species, human DNA, computer code, and industrial classes the progress of science, industry and human innovation would have been forestalled. As we share global commons, like the atmosphere, **a common language is required to connect the physical currency of greenhouse gas emissions to economic and financial ones.**

1 Visual Capitalist. (2020). All of the World's Wealth in One Visualization. Retrieved from https://www.visualcapitalist.com/all-of-the-worlds-wealth-in-one-visualization/

2 Our World in Data. (2019). Who emits the most CO2 today?. Retrieved from https://ourworldindata.org/annual-co2-emissions

3 Centre for European Reform. (2019). Should the EU tax imported CO2?. Retrieved from https://www.cer.eu/insights/should-eu-tax-imported-co2

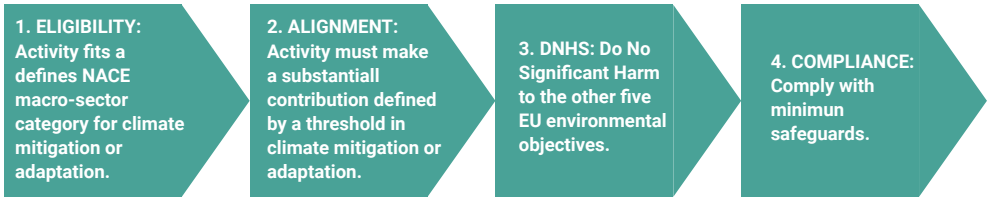
4 FAO. (2020). Key facts and findings: By the numbers: GHG emissions by livestock. Retrieved from http://www.fao.org/news/story/en/item/197623/icode/#.~:text=Total%20emissions%20from%20global%20livestock,of%20all%20anthropogenic%20GHG%20emissions.&text=On%20a%20commodity%2Dbasis%2C%20beef,the%20sector's%20overall%20GHG%20outputs

- **Many activities are just not eligible to be "green":** 25% of global companies, by market-cap, are responsible for 90% of global emissions[5]. The EU's technical expert group (TEG) identified that 93.5% of Europe's direct greenhouse gas emissions come from just seven macro sectors (described by NACE codes – the EU's Standard Industry Classifications[6]). These are mainly Energy, Transport, Buildings, Industry and Land Use related activities. The remaining fourteen NACE macro-sectors contain most (c. 64%) of EU GDP, economic value-add and jobs. This explains why the **EU Taxonomy identifies just those eligible areas that can make substantial contributions** to one of six climate and environmental objectives, and not harm the others. Not every activity can align with the EU Taxonomy by making a substantial contribution, as they simply fall outside the eligible sectors.

5 Credit Suisse. (2015). How the race to slow climate change may affect stock performance. Retrieved from https://www.southpole.com/de/publikationen/investing-in-carbon-efficient-equities-how-the-race-to-slow-climate-change-may-affect-stock-perform

6 A four-digit classification that provides the framework for the collection and presentation of statistical data mainly in economics, production, employment, national accounts. Sourced from Eurostat. (2020). Glossary: Statistical classification of economic activities in the European Community (NACE) Retrieved from https://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Statistical_classification_of_economic_activities_in_the_European_Community_%28NACE%29

2 Applying the EU Taxonomy for climate tracking: Practical examples



Applying the EU Taxonomy depends upon whom you are (fund manager, bond issuer, project financier or Government) and which type of investment is being assessed (project or asset, share portfolio or capital investment budget). Put simply, an activity – which can be a project or investment – should meet the following four criteria:

- **Be Eligible:** The activity needs to be "taxonomy eligible" to contribute to climate objectives. Practically, this means it needs to fit a NACE macro-sector category (recommended by a Technical Expert Group) – these sectors are those identified as being most relevant to climate objectives;
- **Demonstrate Alignment:** To demonstrate "taxonomy alignment" the project needs to make a significant contribution to climate objectives by passing its defined threshold[7];
- **Do No Significant Harm:** The project needs to show it doesn't harm the other five environmental objectives as defined in the Taxonomy Regulation; and
- **Comply with Minimum safeguards:** Minimum social and governance safeguards are also set out in the Taxonomy Regulation.

From a climate perspective, a taxonomy needs to ensure that all compliant projects build, or convert, assets that are coherent with the EU's 2030 targets and 2050 net-zero emissions trajectories. **Non-compliant projects in eligible sectors are at risk of having their useful lives curtailed by future climate regulation**, or will require additional (hidden) investments to make them taxonomy compliant in the future or will risk to become stranded assets. To align with the taxonomy, projects must make a substantial contribution to climate mitigation, or adaptation, and for each project type, a threshold is used to define this substantial contribution.

Further, **the construction and operation of the complying asset should not significantly harm the EU's non-climate environmental objectives** (water, waste, pollution prevention and biodiversity[8]). In many project finance and municipal transactions, environmental harm is covered in an Environmental Impact Assessment report[9] which is usually a regulatory approval or operating license pre-condition, and is required by mainstream funders in legal due diligence processes.

7 Presently recommended in the technical annex to the TEG's final report on EU Taxonomy 9th March 2020: https://ec.europa.eu/info/files/200309-sustainable-finance-teg-final-report-taxonomy-annexes_en

8 Formally, the sustainable use and protection of water and marine resources; the transition to a circular economy, waste prevention and recycling; pollution prevention and control; and the protection of healthy ecosystems.

9 European Commission. (2017). Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report. Retrieved from https://ec.europa.eu/environment/eia/pdf/EIA_guidance_EIA_report_final.pdf

Environmental impact reporting of the future will need to be upgraded with new definitions like those from a Technical Expert Group (TEG) recently provided **technical screening criteria for 70 climate change mitigation and 68 climate change adaptation activities**, including criteria for do no significant harm to other environmental objectives in a March 2020 report to the EU Commission[10].

The following sections illustrate the application of the EU Taxonomy using the TEG recommended thresholds in key categories drawing from practical case studies and real-life examples:

EU Taxonomy for Projects and Cities

Application of the EU Taxonomy to projects at the public, city and private level is the first major testing ground for the EU Technical Expert Group's recommended thresholds. This is best illustrated by a recent exercise which set-out to help identify green and shovel-ready projects from public and private promoters from 27 EU Member States. As these Member States draft their resilience and recovery plans, they will need an easy approach to identify shovel-ready projects that will deliver a significant contribution to EU energy and climate goals and accelerate Europe to a net-zero emissions economy.

Case study: In just a month, **EY's teams in 27 EU Member States identified €200 billion necessary public and private investments in 1,000 shovel-ready projects**[11], using an online survey, databases and consultations with around 170 stakeholders (Governments, municipalities, public promoters, investors, project developers, start-ups and industrial corporations). EY believes this is just 10% of green projects currently under development, by cities, public and private promoters. This implies that the EU pipeline of green projects could be as high as €1 trillion, and potentially returning all of the 12 million full-time workers lost to Covid-19 to green and productive activity.

The final EY list of 1,000 projects contains **57% taxonomy-aligned municipal, public and privately promoted projects** (passing TEG-recommended thresholds for climate mitigation and adaptation) and 43% projects in eligible sectors, with clear "transition benefits", but whose information provided was insufficient to assess alignment with the taxonomy thresholds. The teams concluded that with more information and a requirement that developers meet EU taxonomy thresholds, many of these projects would be likely to comply. In more fragmented sectors with less sophisticated developers, and smaller projects (like buildings and land use), it was harder to evidence meeting recommended thresholds with the limited initial information provided.

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The following describes the technical approach and practical lessons as reported by EY from its experience:

- The EY team used the TEG technical annex which provides practical guidance and methodology for developing technical screening criteria for climate change mitigation objectives, adaptation objectives and 'do no significant harm' to other environmental objectives.
- Demonstrating compliance with the EU Taxonomy was more complex in the buildings or land-use sectors, where compliance depends on a threshold level of foreseen energy saving performance or global environmental analysis and where developers have not been providing, or focused on, such information deliverables.

10 Presently recommended in the technical annex to the TEG's final report on EU Taxonomy 9th March 2020: https://ec.europa.eu/info/files/200309-sustainable-finance-teg-final-report-taxonomy-annexes_en

11 EY. (2020). A Green Covid-19 Recovery and Resilience Plan for Europe: Summary report September 2020. Retrieved from https://www.euractiv.com/wp-content/uploads/sites/2/2020/09/EY-Green-Recovery-Summary-report.pdf

- Most public and private project developers do not yet refer explicitly to the EU Taxonomy to demonstrate their projects' climate benefits, nor disclose specific threshold information that can prove compliance, and yet **even without the detail many thresholds were applicable with the information provided.**
- EU Taxonomy guidelines cover most economic activities which contribute to climate change mitigation. A limited number of areas are not yet covered by the taxonomy, including eco-design, reduction of material losses, hazardous waste management, and could not therefore be confirmed as EU Taxonomy aligned.

CONCLUSION

The application of the EU Taxonomy to 1,000 projects across the EU27 member states demonstrates that the EU's goal of investing 37% of the Recovery and Resilience Fund and 30% of Next Generation EU and the 2021-27 MFF in EU Taxonomy aligned projects is feasible. Further, it suggests that the EU Taxonomy can be applied to select these projects in its currently recommended form. Finally, application of the EU Taxonomy at the project level has the advantage of being able to include an assessment of doing no significant harm in the non-climate components of the Taxonomy through appropriate Environmental Impact Assessments.

EU Taxonomy for Companies and Funds

It is hard to find a company which is not promoting some kind of climate or environmental activity today and it is genuinely hard to separate the leaders from the green-wash. **The world has reached an all-time high for ESG reporting** with 90% of S&P 500 companies publishing sustainability reports in 2019[12]. Listed companies are under increasing stakeholder and regulatory pressure to describe the impacts of their operations in an integral sense, as a global citizen, and not just in a narrow economic sense. McKinsey's Global Survey[13] showed that 83% of 439 of C-suite leaders and 119 investment professionals said that ESG programs will add more shareholder value in the next five years and that they'd pay a median 10% premium to acquire an ESG aligned company.

Managing environmental, social and governance also matters to fund managers as it is increasingly positively linked to outperformance[14], and ESG regulations are becoming more prescriptive. Finally, in October 2020, green bond issuance beat the $1 trillion mark and as an asset class outperformed regular bonds during covid in 2020[15].

Companies using the EU Taxonomy to report a "percentage of alignment" (as required by Taxonomy Regulation) have to add up taxonomy aligned revenues and divide by their total revenues.

12 Governance & Accountability Institute. (2020). 90% of S&P 500 Index Companies Publish Sustainability Reports in 2019, G&A Announces in its Latest Annual 2020 Flash Report. Retrieved from https://www.ga-institute.com/research-reports/flash-reports/2020-sp-500-flash-report.htm

13 McKinsey & Company. (2020). The ESG premium: New perspectives on value and performance. Retrieved from https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/Sustainability/Our%20Insights/The%20ESG%20premium%20New%20perspectives%20on%20value%20and%20performance/The-ESG-premium-New-perspectives-on-value-and-performance.pdf

14 Financial Times. (2020). Majority of ESG funds outperform wider market over 10 years. Retrieved from https://www.ft.com/content/733ee6ff-446e-4f8b-86b2-19ef42da3824

15 Bloomberg. (2020). Sustainable Debt Is Piling Up—and for Good Reason. Retrieved from https://www.bloomberg.com/news/articles/2020-10-08/sustainable-debt-is-piling-up-and-for-good-reason

This is achieved in four steps[16] which use the same basic tools as for project assessment (as illustrated above):

- **Be Eligible**: Identify the eligibility of the revenue source activity by using NACE macro-sector codes (as for projects);
- **Demonstrate Alignment:** Apply the technical threshold criteria to determine if activity delivers a substantial contribution to climate action (TEG-recommended thresholds, as for projects);
- **Do No Significant Harm:** Undertake due diligence to ensure activity does no significant harm to other environmental areas; listed companies are obliged to disclose breaches of environmental regulations, which together with sustainability reports can cover these requirements; and
- **Comply with Minimum safeguards:** Apply minimum social safeguards (again, usually companies comply with workers' rights in operating jurisdictions, and report against SDGs).

16 EU Technical Expert Group on Sustainable Finance. (2020). Taxonomy: Final report of the Technical Expert Group on Sustainable Finance. Retrieved from https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy_en.pdf

Test on 1,831 companies invested in by 101 EU-domiciled "green" collective investment schemes (UCITS)[17]

In June 2020, the EC reported the results of EU Taxonomy application, for climate mitigation, to 101 collective investment schemes investing in company equity (UCITS) which pertained to be "green" (half with a national (eco)label and half unlabelled but "green themed"). There were 1,831 investee companies in this geographically diverse sample set of funds. Each fund invested in a median of 50 companies, of which around 30% fall under the scope of NFRD (see below). So how many companies are then EU Taxonomy eligible and aligned?

Using Thomson Reuters data and revenue classifications, researchers mapped the turnover segments of the 1,831 companies to NACE codes and then to the EU Taxonomy. 53% of revenues were ineligible for taxonomy application, i.e. they were from sectors with largely neutral climate impacts e.g. pharma, and a third (33%) of revenues were eligible. Just 14% of company revenues could not be mapped to an exact NACE sector (due to an "ambiguous" classification).

With improved company reporting, easier application of EU Taxonomy thresholds (e.g. emissions intensity per unit of production) for alignment with the 'significant contribution' threshold assessments will be possible. However, using proxies and scenarios, researchers were able to estimate that 11% of fund assets were invested in companies which derive over 50% of their revenues from EU taxonomy aligned activities, meaning that 3-6% of these 101 funds would be eligible for an EU Ecolabel under draft criterion I[18].

17 European Commission. (2020). Testing draft EU ecolabel criteria on UCITS equity funds. Retrieved from https://op.europa.eu/en/publication-detail/-/publication/91cc2c0b-ba78-11ea-811c-01aa75ed71a1/language-en/format-PDF/source-137198287

18 European Commission. (2019). Development of EU Ecolabel criteria for Retail Financial Products: Technical Report 2.0: Draft proposal for the product scope and criteria. Retrieved from https://susproc.jrc.ec.europa.eu/product-bureau//sites/default/files/2020-02/20191220_EU_Ecolabel_FP_Draft_Technical_Report_2-0.pdf

The **EU Taxonomy is the cornerstone[19] of multiple regulations impacting company reporting, disclosure, bond issuance, labels, engagement rules and benchmarks**. For companies and funds, two regulations that use EU taxonomy definitions, are critical:

- **Non-Financial Reporting Directive (NFRD)**: Establishes EU rules for non-financial reporting for approximately 6,000 large companies with more than 500 employees considered in the public-interest. These are listed companies, banks, insurance companies and those designed by national authorities. NFRD requires them to publish ESG data on the impacts of their activities. This will deliver transparency for their investors and other stakeholders through the application of the EU taxonomy regulation[20] (article 8) defining and requiring a sustainability classification system for their investments. Launched in 2014, NFRD has been trialled on numerous occasions by many firms, and there are EU Guidelines for implementation released in 2017 and updated in 2019[21]. **Mandatory disclosure of climate risks and impacts would support EU Taxonomy application** and is is hoped for an outcome of the ongoing NFRD revision, as is a public repository for reporting purposes.

- **Sustainable Finance Disclosures Regulation (SFDR),** is supplemented by the EU taxonomy definitions and mandates investment firms and advisors to address the environmental sustainability of investments, the origins of any ESG claims made and the risks the investments present to ESG factors. If managers claim to make sustainable investments, they must also disclose how these investments comply with the 'do no significant harm' principle described in the EU Taxonomy. European Supervisory Authorities (ESAs) recently consulted on a set of proposed Regulatory Technical Standards for this providing a draft template for a statement for reporting principal adverse impacts[22].

In September 2020, PRI's published a review called "Testing the Taxonomy: Insights from the PRI Taxonomy Practitioners Group" showing 35 positive case studies describing their members' experiences from, and recommendations for, implementing the Taxonomy in their own investment processes and operations. Three quarters of participants were based in Europe, and the remainder in the US. The case studies cover listed equity and fixed income, and alignment with the Taxonomy was validated using third party data providers and publicly available data from CDP and Climate Bonds Initiative (CBI). **This shows PRI's members from an array of disciplines already moving to lever the EU Taxonomy approach.**

19 The EU Taxonomy as referenced in the EU Green Bond Standard (EU-GBS) and a Financial Services Ecolabel, ESG corporate engagement rules (Shareholder Rights Directive II), and provisions to set up climate benchmarks (Climate Benchmark Regulation). Source: Factset. (2020). The EU Taxonomy Regulation: An Overview. Retrieved from https://insight.factset.com/eu-taxonomy-regulation.

20 Official Journal of the European Union. (2020). 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088. Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R0852&from=EN

21 European Commission. (2019). Commission guidelines on non-financial reporting. Retrieved from https://ec.europa.eu/info/publications/non-financial-reporting-guidelines_en

22 ESMA. (2020). Joint ESA consultation on ESG disclosures. Retrieved from https://www.esma.europa.eu/press-news/consultations/joint-esa-consultation-esg-disclosures

Learnings, limitations and next steps for EU Taxonomy

In practical application of the EU Taxonomy, challenges were identified and included poor quality reporting, lack of access to data and issues that arose from creating new processes to adapt to the Taxonomy. Ensuring the availability of granular data through upgraded reporting and the development of practical guidance to provide clarity on the selection and exclusion of certain indicators and activities are ways to improve. In addition, policy-makers could support the practical application of the EU Taxonomy to companies and funds by, for example, **putting in place EU certification schemes that provide ESG-relevant data**. Given the relative newness of the processes and clear needs for greater shared practice, the following table summarises some of the approaches to facilitate implementation of the EU Taxonomy:

Good practices in applying the taxonomy to companies and funds

Data sourcing and matching	▷ Documented judgements and proxy assumptions made to interpret technical screening criteria and thresholds are helpful, and appropriate in cases of imperfect fit. ▷ Peer analysis is particularly helpful to note proxy assumptions in particular activities. ▷ Sustainability specialists and investment teams can help establish a process to assess the due diligence aspects of ESG. ▷ Alignment criteria for CAPEX and OPEX are non-competitive information and hence peers can share specific information directly or indirectly via ESG data providers can help verify and validate data. ▷ Stakeholders and investors can identify service providers to support baseline expectations to take into account minimum safeguards and DNSH.
Adapting to the taxonomy approach	▷ Use a framework based on existing sector peer experiences or offered by an experienced service provider with a track record in the sector. ▷ Consider involving third party validator at relatively early stage. ▷ Ensure that relevant resources are available before engaging with key stakeholders to pre-empt threshold data requirements.
Starting a taxonomy process	▷ Build in-house capabilities for the implementation of EU Taxonomy ▷ Start small, evaluating selected activities to identify the specific challenges. Use this initial evaluation to engage with providers and establish a constructive dialogue.

CONCLUSION

Implementing the EU Taxonomy is an exercise that involves multiple components and has a degree of complexity. The EU Taxonomy will start to guide corporate disclosure in the context of the SFDR deadline set for March 21st 2021. Until then, we recommend:

- **Policymakers continue to work with the different stakeholders to develop more practical guidance to the complete spectrum of EU Taxonomy users (corporates, service providers, and investors).**
- **For taxonomy eligibility, NACE codes need a clearer matching with segments and classifications used by market data providers[23].**
- **Easy to apply exclusion criteria can be built alongside an unsustainable taxonomy[24] over the next two years that would complement the EU Taxonomy. Examples of this include the "Excluded Activities" in Annex V[25] of InvestEU and in the EIB's approach to its new Energy Lending Policy[26].**
- **Companies and investors can deliver against Taxonomy requirements if they are equipped with the proper framework that ensures that data has the right level of granularity that is accessible.**
- **Practitioners can start now to engage with specialist sector professionals and peers to review their approaches in the context of the tables and recommendations shown in the Table.**

23 MSCI. (2020). MSCI'S FEEDBACK ON SUSTAINABLE FINANCE –ESG CRITERIA [BENCHMARKS]. Retrieved from https://www.msci.com/documents/1296102/1311232/Response+3.pdf/fd9ba6bb-104d-2977-c3f6-4635cb661bf9?t=1588963700499

24 EBF. (2020). EBF final response 14 July 2020. Retrieved from https://www.ebf.eu/wp-content/uploads/2020/07/EBF-RFSF-FINAL.pdf

25 European Commission. (2018). COM(2020) 403 final: ANNEX 5. Retrieved from https://eur-lex.europa.eu/resource.html?uri=cellar:191b4df3-a18a-11ea-9d2d-01aa75ed71a1.0001.02/DOC_4&format=PDF

26 EIB (2020) https://www.eib.org/attachments/strategies/eib_energy_lending_policy_en.pdf

3 EU Taxonomy for public funds

High direct emitting activities, and low carbon alternatives, compete for around a third of the EU's economy. An increasingly rapid transition is being required in Europe in these areas, and an alignment in terms of materiality and speed for the transitions in energy, transport, industry, buildings and land use sectors, is critical. **Delaying implementation of the EU Taxonomy because it is new is no longer an adequate response from the public nor the private sector.** In fact, until implemented in practice, there is no way of properly understanding the taxonomy's impacts, nor making positive progress on the real data gaps to improve accuracy and uptake via a positive feedback loop to policymakers.

The continued use of imperfect climate tracking systems in the public domain is no longer a viable approach and can be likened to greenwash in the private sector if climate contributions are exaggerated. Given the complex and diverse nature of public spending and the need for a relatively simple approach that is capable of being applied by a large number of actors, a climate-contribution system has grown-up with EU Structural and Investment funds. And yet, defining "green" through these currently used "Rio Markers" – as shown below - can inflate the climate share of public budgets without considering the much-needed "substantial contribution to climate change mitigation". Furthermore, it is a system that is largely unknown and **opaque to the private sector whose monies are so necessary to co-finance climate action.**

Climate Mainstreaming of EU budget and recovery funding

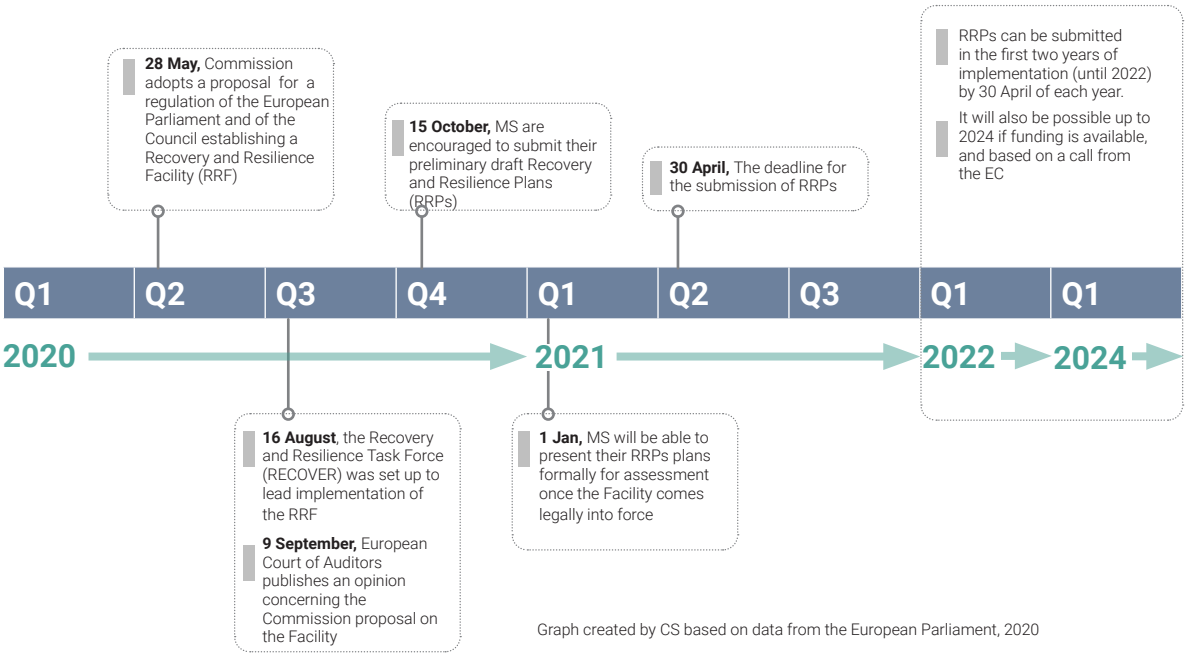
Under the Next Generation EU package, the EU launched a Recovery and Resilience Facility (RRF) to support Member State recovery with grants and loans totalling €672.5 bn, and countries seeking to access the RRF's funds must submit a national Recovery and Resilience Plan (RRP). In parallel, the EU is finalising its budget for the coming seven-year period, the Multiannual Financial Framework 2021-2027, which will see more than €1 trillion in expenditure over this period, much of it under shared management between the European Commission and Member States. The European Council, in its conclusions of 21 July 2020, has set a climate target for both the Next Generation EU, including the RRF, and the EU's budget – according to this target, 30% of spending should support climate action.

On 17th September 2020, the EU Commission published its **guidelines** to Member States for their preparation of their national recovery plans. In the Commission's **template**, Member States are invited to explain to what extent the funding will contribute to the green and digital transitions. **National plans will have to detail their precise contributions to meet the EU's climate neutrality** and the 2030 energy and climate targets and provide concrete steps to achieve a 37% climate mainstreaming target. **Member States recovery plans also need to describe in detail how all planned measures respect the "do no significant harm" principle** with respect to the six climate and environmental objectives defined in the Taxonomy Regulation. **The EU Taxonomy Regulation is referenced directly in draft RRF legislation and in selected EU funds,** for example in the negotiating text for the Just Transition Fund, and will therefore by necessity be required for matching Member State contributions.

The existing method used by the EU for tracking climate action (the "Rio Marker system" as described in the Common Provision Regulation COM(2018) 375)) has become outdated; The old system provides no means of understanding the impacts of investments on climate change or for providing security against doing harm to other environmental objectives.

The continued use of imperfect climate tracking systems in the public domain is no longer a viable approach

Timings of Recovery and Resilience Plans fits EU Taxonomy Regulation



Graph created by CS based on data from the European Parliament, 2020

Current approach to measuring EU climate expenditure: Rio Markers

From 2014-2020, EU Member States have used a percentage for climate tagging (aka "Rio Markers") to measure the share of 'green' in their planned investments and reforms. To determine a reform or investment contributes to climate mainstreaming it can be in one of three categories: a. contributes principally (100%), b. contributes significantly (40%), c. has no impact (0%) on each of the objectives defined by the EU.

Example of Current Tagging Practice in France[27]

France has developed an extensive classification system to screen environmentally friendly and neutral, as well as likely harmful budget expenditure. Driven by national and international environmental priorities, this system mirrors the Rio Markers tagging practice currently under consideration for the RRF and it categorises expenditures along six[28] objectives in line with the Taxonomy. Categories include very favourable, favourable, favourable but controversial; to neutral, and unfavourable.

This case illustrates the institutional inertia which exists in public administration budgets and around existing classification systems. Over the years, the French system for performance-based budget has evolved to offer detailed data on objectives and indicators for each different national programme. Clearly, France has the proper foundation in the use of tags which have enabled its administrations to calculate and estimate the cost of environmental reforms and investments. This positive experience can be developed in coherence with the EU Taxonomy thresholds to provide greater granularity and opportunity for private co-investments. This will then allow Member States to rapidly determine the depth of its national plan, and future-proof its contributions to the green and digital transitions and the climate mainstreaming target.

27 OECD. (2020). Green Budget Tagging: Introductory Guidance & Principles (Working Draft). Retrieved from http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=GOV/PGC/SBO(2020)11&docLanguage=En

28 Climate change adaptation, climate change mitigation, biodiversity, circular economy, water and air quality.

However, the **Rio Markers are severely criticized by the European Court of Auditors**[29] as they can inflate the climate share and **they do not consider "substantial contribution" to align with Paris Agreement.** For example, in the 2018 EU budget proposal, "climate spending" on agriculture would have accounted for half the climate share[30], even though the agricultural sector plays a minor role in decarbonising the EU's economy. Further, energy efficient renovation of existing buildings, under the Rio Markers, is any investment leading to a marginal improvement of the building's energy efficiency (awarded a 100% climate coefficient), yet with the EU Taxonomy, the investment only qualifies if primary energy demand is reduced by at least 30%[31].

29 European Court of Auditors (2020), Tracking climate spending in the EU budget, https://www.eca.europa.eu/lists/ecadocuments/rw20_01/rw_tracking_climate_spending_en.pdf.

30 Given a EU budget of 1.1 trn EUR, a climate share of 25% (= 275 bn EUR) and a 40% climate earmarking for the European Agricultural Guarantee Fund and the European Agricultural Fund for Rural Development (139 bn EUR climate spending).

31 Or the renovation is compliant with the requirements set in the EPBD (Energy Performance of Buildings Directive). See activity "8.2 – Building renovation" in the TEG report.

Why Rio Markers inflate the climate share

The so-called "Rio Marker" currently measure the climate spending in the EU's MFF. They determine the climate significance of each budget line through the categories insignificant (0%), moderate (40%) and significant (100%). While this is simple in its application and barely requires additional capacities (i.e. one needs to add a coefficient next to the reserved amount of an existing household title), the simplicity lacks substance and specificity.

First example: energy efficiency expenses under Cohesion policy. Table 1 of the Common Provision Regulation [COM (2018) 375] assigns a 100% coefficient to the budget line "025 - Energy efficiency renovation of existing housing stock […]". This implies that a 1 million EUR building renovation, which reduces the building's energy efficiency only slightly (e.g. 5%), gets tracked as a "climate spending", thereby signalling that it contributes (significantly) to Europe's climate goals.

Second example: support for 'eco-schemes' under agricultural funds. Another example is the climate tracking proposed for agricultural funds [COM(2018) 392, Article 87]. A 100% coefficient is assigned to support for 'eco-schemes' (e.g. annual payment per eligible hectare). Furthermore, specifications of the 'eco-schemes' depends, a.o., on member states' national CAP strategic plans. The vague and unspecific COM(2018) 392 regulation leads to an inflated climate share of the agricultural funds of 40% and "helps" achieving the set climate share for the overall MFF. This has been severely criticized by the European Court of Auditors.

Taxonomy and Government spending: A way forward

The TEG recommends that the EU Taxonomy, and related concepts, be applied to better assess and understand the multiple options of the RRPs in terms of reforms and public investment elements[32]. This can practically be achieved in the following manner:

- **Member States need to upgrade key definitions for taxonomy-alignment through 'green' projects that make a substantial contribution to climate objectives and taxonomy-compliance through to 'do no harm' activities:** The EU Taxonomy defines 'sustainable' and Article 17 of the Taxonomy Regulation already identifies those activities that 'do no harm' which need to be categorically excluded.

- **RRPs need to have a forward-looking tool to evaluate their green performance:** The EU Taxonomy is the right tool to apply to projects and investments within the plans to ensure coherence in the EU regulatory framework. The EC will need to rely on EU Taxonomy definitions to effectively evaluate[33] the climate contributions of the RRPs.

- **RRFs need to also stimulate private co-investments in recovery:** The RRFs will fund private and publically promoted projects and the private sector will be using the EU Taxonomy to report. The public sector should align, as the private sector does not use "Rio Markers". Further, the integration of 'green tagging[34] with a set of policy reforms can boost progress towards climate targets to align with new 55-60% 2030 GHG reduction targets.

MFF and RRF are an opportunity to demonstrate to the private sector the feasibility and benefits of using the taxonomy. There is an opportunity for Governments to use the RRPs, and other EU funds, to initiate a transition between the old inefficient systems of Rio Markers, and their equivalents, and migrate into the new and markets-aligned approaches which expect to drive global standards. In fact, in a practical assessment of the 143 categories of Rio Markers which appear in Table 1 in the draft Common Provision Regulation COM(2018) 375 have been mapped to EU Taxonomy, in the Annex, and **there are only three categories which are not yet covered by EU Taxonomy** and practically applicable. Of these three, clearly regional airports would not be different (0% green in both), and water savings and protection of natural heritage require minor clarifications.

The EU Green Deal underscores the need to green national budgets, and commits the Commission to step-up its efforts to ensure reliable climate institutional capacity for reporting (to "tackle false green claims") noting that "green claims" should be substantiated using standard methodology to assess their impact. **The EU Taxonomy clearly has multiple advantages at EU and national level.** In the Commission's Sustainable Europe Investment Plan it calls for an enhancement of "the climate and environmental tracking and the sustainability proofing guidance in the second half of 2020. These guidance documents will use in an appropriate way the criteria established by the EU Taxonomy after its entry into force" (InvestEU) and to explore how the EU Taxonomy can be used in the context of the European Green Deal by the public sector, beyond InvestEU.

Both national teams and project developers are starting to use the EU Taxonomy to identify with precision those climate aligned activities in the context of the RRF[35] and **a migration of the old markers systems into a Taxonomy aligned system is clearly possible** as shown in the annex to this paper.

32 EU Technical Expert Group on Sustainable Finance. (2020). 5 high-level principles for Recovery & Resilience. Retrieved from https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/200715-sustainable-finance-teg-statement-resilience-recovery_en.pdf

33 Finance Watch. (2020). 10 Principles for a Sustainable Recovery. Retrieved from https://www.finance-watch.org/wp-content/uploads/2020/10/FW-report_10-Principles-for-a-sustainable-recovery_Oct2020.pdf

34 Identifying, analysing and promoting green finance. Sourced from: Climate Strategy & UNEP FI. (2017). Green Tagging: Mobilising Bank Finance for Energy Efficiency in Real Estate. Retrieved from http://unepinquiry.org/wp-content/uploads/2017/12/Green_Tagging_Mobilising_Bank_Finance_for_Energy_Efficiency_in_Real_Estate.pdf

35 Finance Watch. (2020). 10 Principles for a Sustainable Recovery. Retrieved from https://www.finance-watch.org/wp-content/uploads/2020/10/FW-report_10-Principles-for-a-sustainable-recovery_Oct2020.pdf

When drafting RRPs, teams can align with Taxonomy metrics and language –as documented and recommended by the TEG[36] categorising activities in three areas:

- **Low carbon:** Assets which operate at a level close to net-zero performance. Targeted policy reform and investment to expand and develop these sectors is necessary in 27 Member States.
- **Transition:** The process by which significant eligible sectors and sources of carbon emissions rapidly decarbonise. This requires a considerable investment and policy reform to improve their environmental performance.
- **Enabling:** Opportunities to allow products and services to operate considering their lifecycle basis and thereby support other economy sectors make important sustainability contributions.

Having looked at the Common Provision Regulation, which primarily targets Cohesion Policy, a first exemplification of how the more substantial screening criteria from the **EU Taxonomy can be mapped to the currently used EU climate tracking methodology, and is included in the Annex**. This provides more practical insights into the weakness of the Rio Markers and provides guidance how to improve or replace them.

This mapping exercise, combined with other evidence, revealed that **we should not use the current Rio Markers** for several reasons. First, they have been severely criticized by the European Court of Auditors. Second, they disproportionally inflate the climate shares. Third, they may even open a backdoor for gas (see district heating with a coefficient of 100%). And fourth, they generally lack substance and specificity.

Opponents of the EU Taxonomy may argue that it adds unnecessary complexity. However, **a scientifically backed footing is clearly needed** since the simplicity of the Rio Markers does not take the much-needed "substantial contribution to climate change mitigation" into account. Furthermore, the attached Annex and associated calculations presents 25 dimensions, for which the Rio Marker coefficient is 0% - but the Taxonomy potentially qualifies the investment as a climate spending (e.g. IT solutions as enabling activities, wastewater, recycling, among others).

36 EU Technical Expert Group on Sustainable Finance. (2020). 5 high-level principles for Recovery & Resilience. Retrieved from https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/200715-sustainable-finance-teg-statement-resilience-recovery_en.pdf

CONCLUSION

This paper concludes that the time is right for a full transition to the EU Taxonomy in public and private investments to align with the EU Green Deal. Doubts over the ease of application of the EU Taxonomy TEG recommended thresholds for investments under national recovery and resilience plans are dispelled with evidence provided by €200 billion of investments in 1,000 projects from 27 Member States. The practical challenges (including lack of data, sector complexity in buildings or land-use) are well identified and best addressed in practice by practitioners and the ESG industry which serves them providing policymakers with further enhancements to the existing Regulation. Finally, a full translation of the 143 categories assessed for Rio Markers from Table 1 from the draft Common Provision Regulation COM(2018) 375 with an initial mapping to EU Taxonomy is provided in the Annex to this paper. It shows there are only three categories where EU Taxonomy does currently not cover the relevant dimensions.

ANNEX: CONVERSION TABLE FROM CPR

With support from Frankfurt School of Finance

The tables below presents an initial mapping from Table 1[1] from the draft Common Provision Regulation COM(2018) 375 (i.e. the climate tracking methodology for Cohesion funding, among others) to the EU Taxonomy (COM (EU) 2020/852). The table is presented in a simplified version to reduce clutter. The entire Excel sheet with further details regarding rationale, technical screening criteria and more is available upon request.

In column "Evaluation", we evaluate each row and state whether:

- the dimension has no climate relevance (i.e. Rio Marker of 0% and ineligible under current Taxonomy);
- the EU Taxonomy must be used since the Rio Marker would inflate the climate share (e.g. energy efficiency as marked red in the long table below);
- neither frameworks work (e.g. we consider this dimension to be relevant or both frameworks have limitations – marked in yellow);
- the Rio Marker should be used (e.g. Taxonomy does not cover climate-relevant activities yet – marked in blue);

Having done this exercise for all 143 dimensions, this table presents the aggregated numbers of our recommendations.

Table 2: Aggregation of suggestions

Overview Evaluation		
Final Evaluation	Count	Percentage
No climate relevance	71	50%
Use Taxonomy	61	43%
Neither frameworks work	8	5%
Use Rio Marker	3	2%
SUM	**143**	**100%**

No climate relevance

For approximately 50% of the intervention field dimensions, we identified no climate relevance. This is also reflected by a Rio Marker coefficient of 0% and no exposure to the current EU Taxonomy. Therefore, both frameworks could be used for these dimensions to determine the climate share of the investment and would yield the same result (a 0% coefficient or ineligibility).

Use Taxonomy

For approximately 40% of the intervention field dimensions, we recommend the application of the EU Taxonomy over the Rio Markers. For all of them we identified a direct or indirect link to the current EU Taxonomy (and the corresponding technical screening criteria). In 25 out of 61 cases (see Excel file, sheet "CPR_Tab1_Overview"), the Rio Marker is 0% but the Taxonomy potentially defines the expense as a climate spending (e.g. broadening the scope for EU member states to reach the set climate share of their Recovery and Resilience Plans).

For some activities, the Rio Markers and the EU Taxonomy would yield the same result[2]. Nonetheless, we suggest the Taxonomy for two reasons. First, the EU Taxonomy creates an enabling framework that allows to adjust technical screening criteria based on a science-based discourse (e.g. alignment with a 1.5°C pathway as set out in the Paris Agreement). Second, the EU Taxonomy builds the foundation for sustainable investments aligned with the EU's environmental objectives.

1 European Commission. (2018). COM(2018) 375 final: ANNEXES 1 to 22. Retrieved from https://ec.europa.eu/transparency/regdoc/rep/1/2018/EN/COM-2018-375-F1-EN-ANNEX-1-PART-1.PDF

2 See, for instance, "028 – Renewable energy: wind". Under the EU Taxonomy wind power is currently deemed as "green" without further testing and the Rio Marker assign a coefficient of 100%.

Neither framework works

For roughly 5-6% of the intervention field dimensions, we suggest that that neither Rio Markers nor the EU Taxonomy should be used. Some of them strongly focus on capacity building and knowledge transfers, which we find relevant, but is assigned with a Rio Marker of 0% and not addressed by the EU Taxonomy. Another reason for the ineligibility of both frameworks stems from the lack of detail regarding the "intervention field dimension", specifically whether climate action may be included (e.g. research activities).

Use Rio Marker

For only 3 cases, or roughly 2%, we recommend the application of the Rio Markers over the EU Taxonomy. The main argument for this preference is that the EU Taxonomy does not yet cover these economic activities despite their relevance in climate change mitigation. It must be noted that the European Commission is actively working on extending the EU Taxonomy to additional economic activities. Hence, Rio Markers may be replaced by yet to be developed technical screening criteria of the EU Taxonomy for these 13 economic activities in the near future.

Table 3 – TAXONOMY-RIO MARKER Mapping

For the sake of simplicity, intervention field dimensions with "No climate relevance" are excluded in the column "Suggestion" in this version.

CPR Table 1		Analysis	Rio Markers	EU Taxonomy		
ID	**Intervention Field Dimension**	**Evaluation**	**Climate coefficient**	**Covered by Taxonomy**	**(Potential) Taxonomy activities**	**Description - Screening Criteria**
As stated in CPR Table 1		*Suggestion which framework to use*	*Current coefficient*	*Does the EU Taxonomy cover this dimension?*	*See Excel sheet*	*Summarised description of related screening criteria*
010	Digitizing SMEs (including e-Commerce, e-Business and networked business processes, digital innovation hubs, living labs, web entrepreneurs and ICT start-ups, B2B)	Use Taxonomy	0%	Partially covered	71, 72	No threshold if activity processes or collects data to enable GHG emission reductions (71); Data centre must comply with the "European Code of Conduct for Data Centre Energy Efficiency"(72).
011	Government ICT solutions, e-services, applications	Use Taxonomy	0%	Partially covered	71, 72	See above
022	Research and innovation processes, technology transfer and cooperation between enterprises focusing on the low carbon economy, resilience and adaptation to climate change	Neither frameworks work	100%	Partially covered	71, 72	Note: the current Taxonomy does not cover research activities. We suggest a case by case evaluation instead of applying the Rio Marker.
023	Research and innovation processes, technology transfer and cooperation between enterprises focusing on circular economy	Neither frameworks work	40%	Not covered		Note: see rationale above.
024	Energy efficiency and demonstration projects in SMEs and supporting measures	Use Taxonomy	100%	Covered	57-60	Construction of new buildings (57), building renovation (58), individual renovation measures (59), and acquisition of buildings (60). 57: Net Primary Energy Demand (PED) must be >20% lower than the NZEB requirement (nearly zero-energy building, national directives); 58: Reduction of PED by >30% OR renovation compliant with "major renovation" transposing the EPBD; 59: Long list of individual measures with and without requirements; 60: Buildings built before 2021 must be within the top 15% of the local building stock in terms of PED, Buildings built after must comply with requirements from EPBD
025	Energy efficiency renovation of existing housing stock, demonstration projects and supporting measures	Use Taxonomy	100%	Covered	57-60	See above
026	Energy efficiency renovation of public infrastructure, demonstration projects and supporting measures	Use Taxonomy	100%	Covered	57-60	See above
027	Support to enterprises that provide services contributing to the low carbon economy and to resilience to climate change	Use Taxonomy	100%	Covered	9	Umbrella term. No threshold for essential renewable technologies; different g CO2/km thresholds for vehicles; different efficiency thresholds for energy efficient equipment (e.g. U-value); demonstration of substantial GHG reduction through third party assessment
028	Renewable energy: wind	Use Taxonomy	100%	Covered	22	Life cycle emissions lower than 100gCO2e/kWh, declining to net-0gCO2e/kWh by 2050. Currently derogated from a test.
029	Renewable energy: solar	Use Taxonomy	100%	Covered	20, 21	See above.

030	Renewable energy: biomass	Use Taxonomy	100%	Covered	27	Facilities must operate above 80% of GHG emissions-reduction in relation to the relative fossil fuel comparator (see Renewable Energy Directive II) AND the feedstocks in use must meet the criteria stated in Taxonomy activity "Manufacture of Biomass, Biogas and Biofuels" (p. 249).
031	Renewable energy: marine	Use Taxonomy	100%	Covered	23	Life cycle emissions lower than 100gCO2e/kWh, declining to net-0gCO2e/kWh by 2050. Currently derogated from a test. Currently derogated from a test.
032	Other renewable energy (including geothermal energy)	Use Taxonomy	100%	Covered	24, 25	Hydropower (24) & Geothermal (25): Facilities operating at life cycle emissions lower than 100gCO2e/kWh, declining to 0gCO2e/kWh by 2050 are eligible.
033	Smart Energy Distribution Systems at medium and low voltage levels (including smart grids and ICT systems) and related storage	Use Taxonomy	100%	Covered	28, 29	Transmission and Distribution of Electricity (28): The European System meets the current criteria. Therefore, it is derogated from a test; Storage of electricity (29): No threshold applies.
034	High efficiency co-generation, district heating and cooling	Use Taxonomy	100%	Covered	Several Taxonomy activities (all linked to cogeneration, or production of heat/cool). Threshold: Life cycle emissions lower than 100gCO2e/kWh, declining to net-0gCO2e/kWh by 2050. Infrastructure for distributing heating and cooling is eligible if it follows the EU Energy Efficiency Directive.	
035	Adaptation to climate change measures and prevention and management of climate related risks: floods (including awareness raising, civil protection and disaster management systems and infrastructures)	Use Taxonomy	100%	Adaptation		Note: covered by EU Taxonomy on climate change adaptation.
036	Adaptation to climate change measures and prevention and management of climate related risks: fires (including awareness raising, civil protection and disaster management systems and infrastructures)	Use Taxonomy	100%	Adaptation		Note: covered by EU Taxonomy on climate change adaptation.
037	Adaptation to climate change measures and prevention and management of climate related risks: others, e.g. storms and drought (including awareness raising, civil protection and disaster management systems and infrastructures)	Use Taxonomy	100%	Adaptation		Note: covered by EU Taxonomy on climate change adaptation.
038	Risk prevention and management of non-climate related natural risks (i.e. earthquakes) and risks linked to human activities (e.g. technological accidents), including awareness raising, civil protection and disaster management systems and infrastructures	Use Taxonomy	0%	Adaptation		Note: covered by EU Taxonomy on climate change adaptation.
039	Provision of water for human consumption (extraction, treatment, storage and distribution infrastructure, efficiency measures, drinking water supply)	Use Taxonomy	0%	Covered	45	Front-to-end water supply system: < 0.5 kwh per cubic meter water supply OR decreasing average energy consumption by >20%/ decreasing leakage by >20%
040	Water management and water resource conservation (including river basin management, specific climate change adaptation measures, reuse, leakage reduction)	Use Taxonomy	40%	Partially covered	45	See above.

041	Waste water collection and treatment	Use Taxonomy	0%	Covered	46	No threshold applies (if constructed/extended wastewater system replaces a more GHG intensive system).
042	Household waste management: prevention, minimisation, sorting, recycling measures	Use Taxonomy	0%	Covered	48,49,50	Separate collection (48): no threshold applies if "source segregated waste is separately collected with the aim of preparing for reuse and/or recycling"; Digestion of bio-waste (49): see screening criteria on p. 302 f.; Composting of bio-waste (50): no threshold applies if bio-waste is collected separately, anaerobic digestion is not a viable alternative, and compost is used as fertiliser
043	Household waste management: mechanical biological treatment, thermal treatment	Use Taxonomy	0%	Covered	48,49,50	See above.
044	Commercial, industrial or hazardous waste management	Use Taxonomy	0%	Covered	48,49,50	See above.
045	Promoting the use of recycled materials as raw materials	Use Taxonomy	0%	Covered	51	At least 50%, in terms of weight, of the processed separately collected non-hazardous waste is converted into secondary raw materials.
046	Rehabilitation of industrial sites and contaminated land	Use Taxonomy	0%	Partially covered	2	See Technical Annex of the TEG Final Report on the EU Taxonomy – p. 60ff
047	Support to environmentally-friendly production processes and resource efficiency in SMEs	Use Taxonomy	40%	Partially covered	9	Umbrella term. No threshold for essential renewable technologies; different g CO2/km thresholds for vehicles; different efficiency thresholds for energy efficient equipment (e.g. U-value); demonstration of substantial GHG reduction through third party assessment
048	Air quality and noise reduction measures	Use Rio Marker	40%	Not covered		Note: Taxonomy for the environmental dimension pollution not available yet.
049	Protection, restoration and sustainable use of Natura 2000 sites	Use Taxonomy	40%	Covered	5	See Technical Annex of the TEG Final Report on the EU Taxonomy – p. 85ff
050	Nature and biodiversity protection, green infrastructure	Use Taxonomy	40%	Partially covered	5	See Technical Annex of the TEG Final Report on the EU Taxonomy – p. 85ff
055	ICT: Other types of ICT infrastructure (including large-scale computer resources/equipment, data centres, sensors and other wireless equipment)	Use Taxonomy	0%	Partially covered	71, 72	No threshold if activity processes or collects data to enable GHG emission reductions (71); Data centre must comply with the "European Code of Conduct for Data Centre Energy Efficiency" (72)
056	Newly built motorways and roads - TEN-T core network	Use Taxonomy	0%	Partially covered	62	Infrastructure must be fundamental to operation of the transport service. Infrastructure is eligible if it is "predominantly used for low-carbon transport" (thresholds per km gCO2/km, per tonne-kilometer gCO2e/tkm or per passenger-kilometer gCO2e/pkm apply). - Excluded if dedicated to fossil fuel transport!
057	Newly built motorways and roads - TEN-T comprehensive network	Use Taxonomy	0%	Partially covered	62	See above.
058	Newly built secondary road links to TEN-T road network and nodes	Use Taxonomy	0%	Partially covered	62	See above.
059	Newly built other national, regional and local access roads	Use Taxonomy	0%	Partially covered	62	See above.

060	Reconstructed or improved motorways and roads - TEN-T core network	Use Taxonomy	0%	Partially covered	62	See above.
061	Reconstructed or improved motorways and roads - TEN-T comprehensive network	Use Taxonomy	0%	Partially covered	62	See above.
062	Other reconstructed or improved roads (motorway, national, regional or local)	Use Taxonomy	0%	Partially covered	62	See above.
063	Digitalisation of transport: road	Use Taxonomy	40%	Partially covered	71, 72	No threshold if activity processes or collects data to enable GHG emission reductions (71); Data centre must comply with the "European Code of Conduct for Data Centre Energy Efficiency" (72)
064	Newly built railways - TEN-T core network	Use Taxonomy	100%	Covered	62	No threshold applies if railway infrastructure is predominantly used by "low-carbon" transport (e,g, electric trains are eligible). Other trains must comply with screening criteria. For non-electrified rail infrastructure there must be a plan for electrification – Excluded if dedicated to fossil fuel transport!
065	Newly built railways - TEN-T comprehensive network	Use Taxonomy	100%	Covered	62	See above.
066	Other newly built railways	Use Taxonomy	100%	Covered	62	See above
067	Reconstructed or improved railways - TEN-T core network	Use Taxonomy	0%	Covered	62	See above.
068	Reconstructed or improved railways - TEN-T comprehensive network	Use Taxonomy	0%	Covered	62	See above
069	Other reconstructed or improved railways	Use Taxonomy	0%	Covered	62	See above.
070	Digitalisation of transport: rail	Use Taxonomy	40%	Partially covered	71, 72	No threshold if activity processes or collects data to enable GHG emission reductions (71); Data centre must comply with the "European Code of Conduct for Data Centre Energy Efficiency" (72)
71	European Rail Traffic Management System (ERTMS)	Use Taxonomy	0%	Partially covered	71	No threshold if activity processes or collects data to enable GHG emission reductions (71).
72	Mobile rail assets	Use Taxonomy	40%	Covered	9	Zero direct emission trains are eligible. See criteria specified on p. 162f.
73	Clean urban transport infrastructure	Use Taxonomy	100%	Covered	62	Infrastructure must be fundamental to operation of the transport service. Infrastructure is eligible if it is "predominantly used for low-carbon transport" (thresholds per km gCO2/km, per tonne-kilometer gCO2e/tkm or per passenger-kilometer gCO2e/pkm apply). - Excluded if dedicated to fossil fuel transport!
74	Clean urban transport rolling stock	Use Taxonomy	100%	Covered	65	No threshold for: zero direct emission urban transport rolling stock.
75	Cycling infrastructure	Use Taxonomy	100%	Covered	62	Active mobility infrastructure is eligible, no evaluation required.
76	Digitalisation of urban transport	Use Taxonomy	40%	Partially covered	71, 72	No threshold if activity processes or collects data to enable GHG emission reductions (71); Data centre must comply with the "European Code of Conduct for Data Centre Energy Efficiency" (72)
77	Alternative fuels infrastructure	Use Taxonomy	100%	Covered	62	Infrastructure that is required for zero direct emissions transport is eligible (e.g. electric charging points, hydrogen fuelling stations etc).
78	Multimodal transport (TEN-T)	Use Taxonomy	40%	Partially covered	62	Note: Apply the Taxonomy's screening criteria to different "modal" elements (bus, train, cars etc).

79	Multimodal transport (not urban)	Use Taxonomy	40%	Partially covered	62	Note: Apply the Taxonomy's screening criteria to different "modal" elements (bus, train, cars etc).
80	Seaports (TEN-T)	Use Taxonomy	40%	Covered	61	Infrastructure for low-carbon water transport (61): No threshold for infrastructure required for zero direct emission transport or when dedicated to supporting the renewable energy sector - excluded if dedicated to fossil fuel transport!
81	Other seaports	Use Taxonomy	40%	Covered	61	See above.
82	Inland waterways and ports (TEN-T)	Use Taxonomy	40%	Covered	61	See above.
83	Inland waterways and ports (regional and local)	Use Taxonomy	40%	Covered	61	See above.
84	Digitising transport: other transport modes	Use Taxonomy	40%	Partially covered	71, 72	No threshold if activity processes or collects data to enable GHG emission reductions (71); Data centre must comply with the "European Code of Conduct for Data Centre Energy Efficiency" (72)
130	Protection, development and promotion of natural heritage and eco-tourism	Use Rio Marker	0%	Not covered		Note: Importance is acknowledged. The Taxonomy currently does not cover tourism.
132	Improve the capacity of programme authorities and bodies linked to the implementation of the Funds	Neither frameworks work	0%	Not covered		Note: In principle capacity building is highly relevant.
133	Enhancing cooperation with partners both within and outside the Member State	Neither frameworks work	0%	Not covered		Note: In principle cooperation & capacity building is highly relevant.
134	Cross-financing under the ERDF (support to ESF-type actions necessary for the implementation of the ERDF part of the operation and directly linked to it)	Neither frameworks work	0%	Not covered		
135	Enhancing institutional capacity of public authorities and stakeholders to implement territorial cooperation projects and initiatives in a cross-border, transnational, maritime and inter-regional context	Neither frameworks work	0%	Not covered		Note: In principle capacity building is highly relevant.
138	Outermost regions: support to compensate additional costs due to climate conditions and relief difficulties	Neither frameworks work	40%	Not covered		Note: Important for a just transition. However, difficult to build the link to climate change mitigation.
139	Outermost regions: airports	Use Rio Marker	0%	Not covered		Note: Aviation currently not covered by Taxonomy (a known and admitted gap).
140	Information and communication	Use Taxonomy	0%	Partially covered	71, 72	No threshold if activity processes or collects data to enable GHG emission reductions (71); Data centre must comply with the "European Code of Conduct for Data Centre Energy Efficiency" (72)
141	Preparation, implementation, monitoring and control	Use Taxonomy	0%	Partially covered	71, 72	See above.
142	Evaluation and studies, data collection	Use Taxonomy	0%	Partially covered	71, 72	See above.
143	Reinforcement of the capacity of Member State authorities, beneficiaries and relevant partners	Neither frameworks work	0%	Not covered		Note: In principle capacity building is highly relevant.

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Acronyms

B2B - Business-to-business
CAPEX - Capital expenditures
CBI - Climate Bonds Initiative
CDP - Carbon Disclosure Project
CO2e - carbon dioxide equivalent
CPR - Common Provisions Regulation
DNSH - Do No Significant Harm
EC – European Commission
EPBD - Energy performance of buildings directive
ESAs - European Supervisory Authorities
ESF - European Social Fund
ESG - Environmental, Social, and Governance
EU – European Union
ERDF - European Regional Development Fund
ERTMS - European Rail Traffic Management System
GBF - EU's Green Bond Framework
GDP – Gross domestic product
GHG - greenhouse gas
GRI - Global Reporting Initiative
ICT - Information and communications technology
MEPs - Members of the European Parliament
MFF – Multiannual financial framework
MiFID - Markets in financial instruments directive
NACE - Nomenclature of Economic Activities
NFRD - Non-Financial Reporting Directive
NZEB - Nearly zero-energy buildings
OPEX – Operating expense
PED - Primary Energy Demand
PRI - Principles for Responsible Investment
RRF - Recovery and Resilience Facility
RRPs - Recovery and Resilience Plans
SASB - Sustainability Accounting Standards Board
SFDR - Sustainable Finance Disclosures Regulation
SMEs - Small and mid-size enterprises
TCFD - Task Force on Climate-related Financial Disclosures
TEG - Technical Expert Group
TEN-T - Trans-European Transport Network
UCITS - Undertakings for collective investment in transferable securities
UN SDGs – United Nations Sustainable Development Goals

About this report

This report is written by Peter Sweatman, Chief Executive of Climate Strategy & Partners (info@ climatestrategy.com) and Malte Hessenius, Analyst - Sustainable Finance and Climate Policy (hello@climcom.de). Peter Sweatman was supported by Mauricio Yrivarren, as lead research associate and Dolores Huerta for graphic design.

About Climate Strategy & Partners

Climate Strategy & Partners is a leading consultant in climate finance, energy efficiency investments and the corporate strategies and Government policies required to up-scale both. For 11 years, the Climate Strategy team has been providing global companies, banks and Governments advice on how to accelerate the economic transition to a low carbon economy. Climate Strategy's chief executive, Peter Sweatman, has authored or co-authored fifteen white papers, is the rapporteur to the G20's Energy Efficiency Financial Task Group (EEFTG) and the EU Commission and UN Environment Finance Initiative's Energy Efficiency Financial Institutions Group (EEFIG). Climate Strategy has supported energy transition policy development in Mexico, France, UK and Spain and continues to implement leading low carbon business solutions for global clients. More information can be found at www.climatestrategy.com

About Climate & Company

Since the late 1990s Climate & Company (C&C) has been working primarily on the challenges of analysing, financing and policy design for climate action and sustainable development. Based on a broad and differentiated understanding of policy making, financial market practice and the rigorous analysis of industrial processes, C&C is able to solve complex challenges across sector and country boundaries. The C&C team brings together the right mix of skills, experience and motivation focused on creating a world worth living in for people today and for the future of our children.

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