



THE EUROPEAN TAXONOMY OF ENVIRONMENTALLY SUSTAINABLE ECONOMIC ACTIVITIES

Vade mecum to digest the 414-page Report from the TEG



Lead Authors : Cédric Merle, Orith Azoulay

With the contribution of Gratien Davasse, Liu Hongqiao, Lisa Darles

CONTENTS



- 1. A TAXONOMY: WHAT IS IT?**
- 2. TIMELINE, LEGAL BASIS & GOVERNANCE**
- 3. HOW IS IT SUPPOSED TO WORK?**
- 4. WHAT IS THE SCOPE OF ACTIVITIES COVERED?**
- 5. USES AND USERS : WHO AND HOW BINDING?**
- 6. EXAMPLES OF ACTIVITIES : HOW USABLE & STRINGENT IS IT?**
 - Production of Electricity from Gas Combustion
 - Passenger cars and commercial vehicles
 - Transmission and Distribution of Electricity
 - Storage of energy
 - Manufacture of Cement
 - Manufacture of Aluminium
 - Manufacture of plastics in primary form
 - Construction of new buildings
 - Renovation of existing buildings
- 7. CLIMATE CHANGE ADAPTATION : SNAPSHOT OF CLIMATE HAZARDS' CLASSIFICATION AND ADAPTATIVE MEASURES**
- 8. BRIEFING ON THE GUIDELINES ON REPORTING CLIMATE-RELATED INFORMATION**



Within a year, unprecedented efforts allowed to deliver a sort of “encyclopedia” of sustainability. Fortunately, the 414-page report released on June 18 by the *Technical Expert Group on Sustainable Finance* (TEG) shows significant usability improvements compared with the December draft report. The sectorial coverage has been tremendously extended with a total of 67 activities reviewed, even though a few sensitive ones are still lacking, namely mining, glass manufacturing, paper and pulp manufacturing, aviation or maritime transport... Overall, it appears that the TEG gave its best shot to excogitate the plethora of feedback expressed during the first consultation. The “*do no significant harm assessment*” is less loquacious. It is trying to be as anchored as possible into existing environmental regulations and standards.

Although a considerable challenge considering the richness and technicality of this document, our main takeaways and comments could be synthesized as follows:

If we were to make one overall comment on the EU Taxonomy, it would probably relate to the stringency of the proposed thresholds, and how far they often currently stand from sustainable finance market practices and industrial observed performance levels. Though, one should not lose sight of the remit of such Taxonomy: define environmentally sustainable activities which would underline sustainable financing / investing products, standards and regulations, as well as the needed disclosure to structure those. (Environmentally) sustainable activities are defined here as those allowing for carbon neutrality in 2050. The TEG, and later the European Commission in its [Regulation proposal](#) “[On the establishment of a framework to facilitate sustainable](#)

[investment](#)” and subsequent Delegated Acts encompassing technical screening criteria (the EU Taxonomy), are not taking any stance on whether activities not falling within the proposed thresholds deserve, or not, financing overall. In that context, stringency is what we expect from the EU Taxonomy to preserve the integrity of Sustainable Finance, which is what we see as the main risk to its development. Though, we would probably argue that the newly added (and very welcome) “transitioning” activities approach is very narrow, long sighted and demanding and could allow for more progressivity in thresholds in the next decade (see below).

Technical screening criteria are multifaceted and reflect pragmatism. To delineate the “eligibility” of economic activities, the TEG has brought forth a sound mix of thresholds expressed in intensity (e.g. gCO₂e/unit of product) or in relative (against company baseline or market counterfactuals), abidance by standards, labels, technologies or practices. Criteria are technology-agnostic whenever possible, alike the threshold for electricity generation (100gCO₂e/kWh). Sensitive political topics are not eluded: for example, attention is brought to the option of “*reducing cattle numbers and increasing legume production as an alternative source of protein*”, even though time or mandate were missing to address them properly. Unsurprisingly, nuclear is out because of waste concerns, but the TEG states that new technologies could enter the Taxonomy whenever mature, nuclear fusion being mentioned. Among novelties, strong emphasis is made on “ratcheting ambition and thresholds upgrading” with “*clause de rendez-vous*”, especially for transition activities.

“Transition activities” are introduced but under stringent criteria.

There is room for high emitting activities but under demanding conditions, which are derived either from required trajectories to achieve net carbon neutrality by 2050 and/or from the top 10% performers’ level of the EU-ETS Benchmark in a given sector. If the EU-ETS has until now not made it possible to provide necessary incitative carbon pricing, it may reveal a valuable source of carbon data for industrials. The message is clear, unabated fossil fuel power generation must be phased out. Gas will not be eligible without Carbon Capture, and actual physical measurements are required for methane leakage. Often, thresholds for transition activities will be harder to reach. For instance, in the case of plug-in hybrid vehicles that usually emit more than the 50gCO₂/km threshold proposed (especially SUVs). In cement, steel or iron manufacturing industries, only cutting-edge facilities might be eligible. Recycling and circularity are systematically advantaged, with automatic eligibility for aluminum recycling, or scrap steel when representing more than 90% of the feedstock.

Reporting on EU Taxonomy compliance, for instance on revenues from eligible activities, will be demanding but should not stifle its appropriation by market participants.

Actual measurement is preferred over calculation through modelling whenever feasible, depending on costs, methodologies and counterfactuals availability and reliability. Third-party certification audits performed by accredited certification bodies are to be required for several activities, at regular intervals (e.g. 3-year intervals audit for carbon sinks for growing of crops). Demonstrating compliance will be dead sure costly, demanding but game changing. Data providers will be instrumental in Taxonomy’s adoption, by creating “Taxonomy profiles” for companies as suggested by the TEG, an idea that we really laud.

The question of the “binding nature” of the Taxonomy and with it, the very question of its adoption at scale is central. Under the proposed [Regulation On the establishment of a framework to facilitate sustainable investment](#), institutional investors and asset managers are assigned an ambiguous “*comply or explain*” obligation, as they must report accurately how the financial products they market “as sustainable” relate to the Taxonomy. By this time, the Article 4 of the Regulation that establishes obligations to use the Taxonomy is still under discussion. But apart from this mandatory dimension, we think that from the moment when European sovereign or government-controlled asset owners or managers will commit to invest and report upon the EU taxonomy, and it is reasonable to think that they will, high upfront costs will be absorbed, and private investors and the rest of the industry will follow. Meanwhile, the more the EU Member States use it do device labels, tax incentives or adapt public procurement rules, the faster the penetration will be.

This publication, that we called a “*vade mecum*”, tries to answer fundamental questions and charts the consequences and transformative potential uses of such a Taxonomy. Uncertainty regarding the content of the future Regulation and Delegated Acts remains. We hope that the negotiations between the Council of the European Union, the European Parliament and the European Commission - will be fruitful and ambitions not be downgraded.

With this publication, Natixis GSH intends to raise awareness and understanding (in particular the Q&A and the stringency and usability activity assessment sheets) on what is at stake, on the tremendous work that has been done and the tasks that loom ahead.

We do not feel we go astray but rather launched into orbit and esteem that, we, collectively in Europe, now have a tool to start and speak the “same language”.



LEAD AUTHORS OF THIS PUBLICATION



Orith Azoulay
Global Head of Green & Sustainable
Finance
Managing Director
Natixis
orith.azoulay@natixis.com



Cédric Merle
Green & Sustainable Finance
Expert
Center of Expertise
Natixis Green & Sustainable Hub
cedric.merle@natixis.com

With the contribution of ...



Gratién Davasse
Green & Sustainable Finance Expert
Center of Expertise
Natixis Green & Sustainable Hub
gratien.davasse-ext@natixis.com



Liu Hongqiao
Green & Sustainable Finance Expert
Center of Expertise
Natixis Green & Sustainable Hub
hongqiao.liu-ext@natixis.com



Lisa Darles
Public Affairs
Natixis
lisa.darles@natixis.com



Conference calls to present this publication are to be organized in the coming days:

Call n°1 on Tuesday 9 July, 2019, from 04.00 PM to 05.00 PM (UTC+01:00)

Call n°2 on Friday 12 July, 2019, from 09.00 AM to 10.00 AM (UTC+01:00)



A sample of 9 economic activities usability and stringency review is provided in this publication, others will be **available upon request**

Numerous Q&A addressed along the document

RATIONALE & GENESIS

1. What is it?
2. What is it not?
3. Why is it needed?
4. Who did initiate it?
5. Who wrote the 414-page Technical Report?
6. How are defined technical criteria underpinning eligibility?
7. Is the taxonomy a risk management tool?
8. Is it only European?

ADOPTION PROCESS & TIMELINE

9. Is the June 2019 report the definitive version of the EU taxonomy?
10. Is the technical report from the TEG binding for the European Commission?
11. Will the EU taxonomy be embedded into hard law?
12. Is the approval of the Member States and European Parliament needed?
13. When is it supposed to enter into force?
14. Will transposition into national laws be required?
15. Who will be in charge of overseeing and updating the taxonomy?

HOW DOES IT WORK?

16. Does it provide a list of automatically eligible activities?
17. How is taxonomy eligibility determined?
18. Are criteria fit for asset or organization level assessments?

WHAT DOES IT COVER?

19. What classification of activities has been used?
20. Is it compatible with other classification systems?
21. Are only pure or dark green activities included?
22. What were the activities or sectors reviewed?
23. Does it exclude some activities?
24. Is it only about climate change?

WHO AND WHAT IS IT MEANT FOR?

25. To whom is it supposed to apply?
26. What are the main use cases?
27. What are other optional / potential uses?
28. For the market participants falling under the scope of application, is the Regulation compulsory?

WHAT ARE USERS EXPECTED TO DO?

29. Why should I use it if not mandatory?
30. Who is supposed to carry the taxonomy compatibility analysis?
31. Will companies have to report upon the taxonomy and what?
32. Will market participants have to formally declare if they use the taxonomy?
33. Who will verify the robustness of the taxonomy compliance claims?
34. Does it replace the Green Bond / Loan Principles or Climate Bond Initiative?



What came out in June?

The TEG Reports published in June 2019

4 long awaited documents were released on June 18 from the **Technical Expert Group on Sustainable Finance** (TEG), a group of 35 experts from finance, academia, civil society and industry, and the European Commission (Communication “*Guidelines on reporting climate-related information released*”, see dedicated section).



Taxonomy Technical report (414 pages)



- Full methodology
- Use cases and case studies
- 67 economic activities assessed
- Methodology for adaptation tested on 9 activities



The EU Green Bond Standard (79 pages)



- Proposed draft
- Core Components
- Accreditation regime
- Incentives
- Impact



User guide (26 pages)



- Concise guide to key concepts
- Examples
- Overview of the criteria



Climate benchmarks and benchmarks' ESG Disclosures (67 pages)



- Uses cases and objectives
- Technical challenges
- Green to brown Ratio



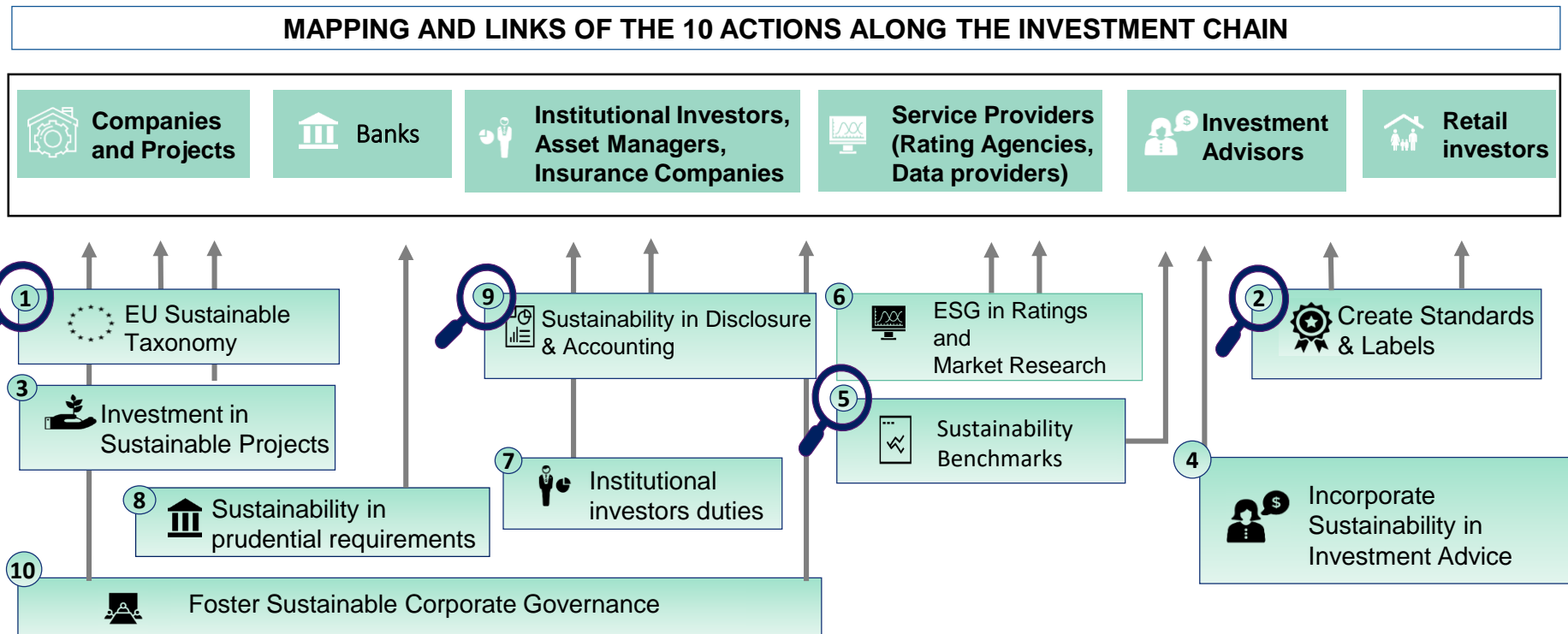
All those materials are not “definitive” and will only inform upcoming legislation and guidance.



Reminder : overview of the EU Action Plan

The EU “**Action Plan: Financing Sustainable Growth**” released on 8 March 2018 covers the whole sector: asset management, banking, benchmarks, capital markets, credit ratings, financial centers, insurance firms, investment consultants, pension funds, stock exchanges.

 4 actions for which the TEG or the European Commission released landmark documents in June 2019



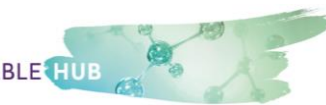
Source: [European Commission: Action Plan on Financing Sustainable Growth \(2018\)](#).

1

A TAXONOMY OF SUSTAINABLE ACTIVITIES: WHAT IS IT?



GREEN & SUSTAINABLE HUB





Reminder: the EU taxonomy of sustainable activities

A Taxonomy is a **classification tool to help investors and companies make informed investment decisions on environmentally friendly economic activities**. It is supposed to establish market clarity on what is sustainable.

The EU Taxonomy is a list of economic activities with performance criteria for their contribution to six environmental objectives (see *infra*)



IS

- A list of economic activities and relevant criteria
- Flexible to adapt to different investment styles and strategies
- Based on latest scientific and industry experience
- Dynamic, responding to changes in technology, science, new activities and data



IS NOT

- A rating of good or bad companies
- A mandatory list to invest in
- Making a judgement on the financial performance of an investment – only the environmental performance
- Inflexible or static



- 1. What is it?** A regulatory initiative at European level to establish a classification of environmentally sustainable economic activities with technical screening criteria.
- 2. What is it not?** It is neither a rating of good or bad companies nor a mandatory list of economic activities to invest in or to divest from.
- 3. Why is it needed?** To provide clarity across capital markets regarding what could be unambiguously considered as environmentally sustainable, based on climate-science. It should prevent green washing and lower transaction costs.
- 4. Who did initiate it?** The European Commission, it is the bedrock of its “Action Plan: Financing Sustainable Growth” released on March 2018 which encompasses 10 Actions.
- 5. Who wrote the 414-page Technical Report?** The Technical Expert Group made up of 35 members appointed by the European Commission, with the assistance of 160 additional experts.

Rationale & genesis

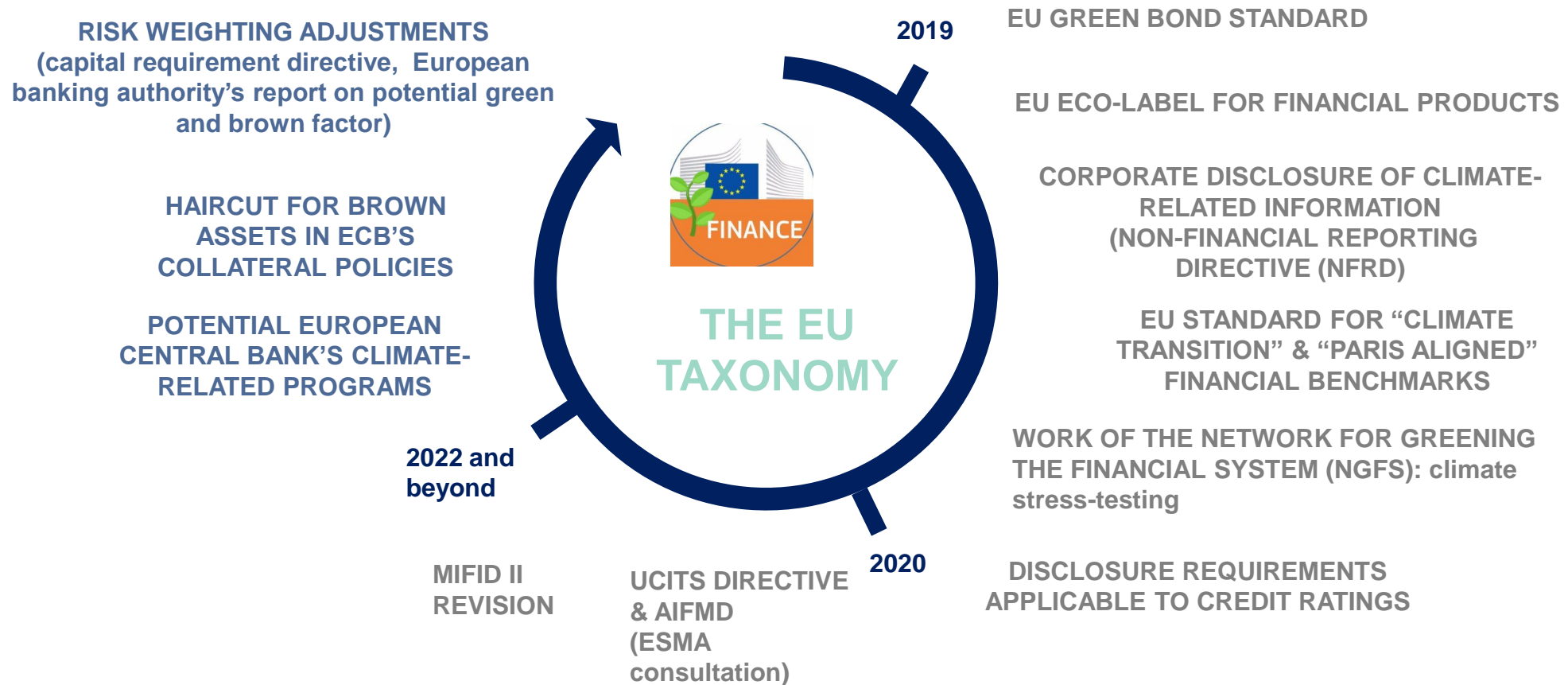
6. How are defined technical criteria underpinning eligibility? Criteria vary and can be expressed in terms of GHG reduction thresholds (in intensity or relative terms), compliance to labels or standards, or through inclusion in a specific list of (best available) technologies or practices.

7. Is the taxonomy a risk management tool? There are two overarching categories: greening of activities (decarbonization of the activity itself, with two sub-categories: “already low carbon activities” and “activities in transition”) and greening *by* (enabling activities that support the decarbonization of other activities). The second is more opportunities oriented. Regarding the *greening of* activities, the taxonomy does not take a view on their exposure to transition, regulatory or physical risks. But transition activities failing to meet the thresholds will fail to be considered as green and may face regulatory or reputational risks in the future.

8. Is it only European? Yes, but it applies also to foreign market participants selling allegedly sustainable financial products in Europe, no matter the location of the investment. Some coordination to allow at least comparability with other existing taxonomies has been undertaken (with China for instance). A European company operating globally will find it hard to set apart its non-European activities when assessing / reporting on the greenness of its activity, though the applicability of some criteria is questionable in their overseas activities (especially as soon as they refer to the compliance with European environmental regulations).

The Taxonomy is meant to be the bedrock of many financial mechanisms

Apart from the “*comply or explain*” obligation for institutional investors and asset managers (article 4 of the considered Regulation subject to trialogue’s agreement), other uses are foreseeable



Source: Natixis GSH, Authors

2

TIMELINE, LEGAL BASIS & GOVERNANCE

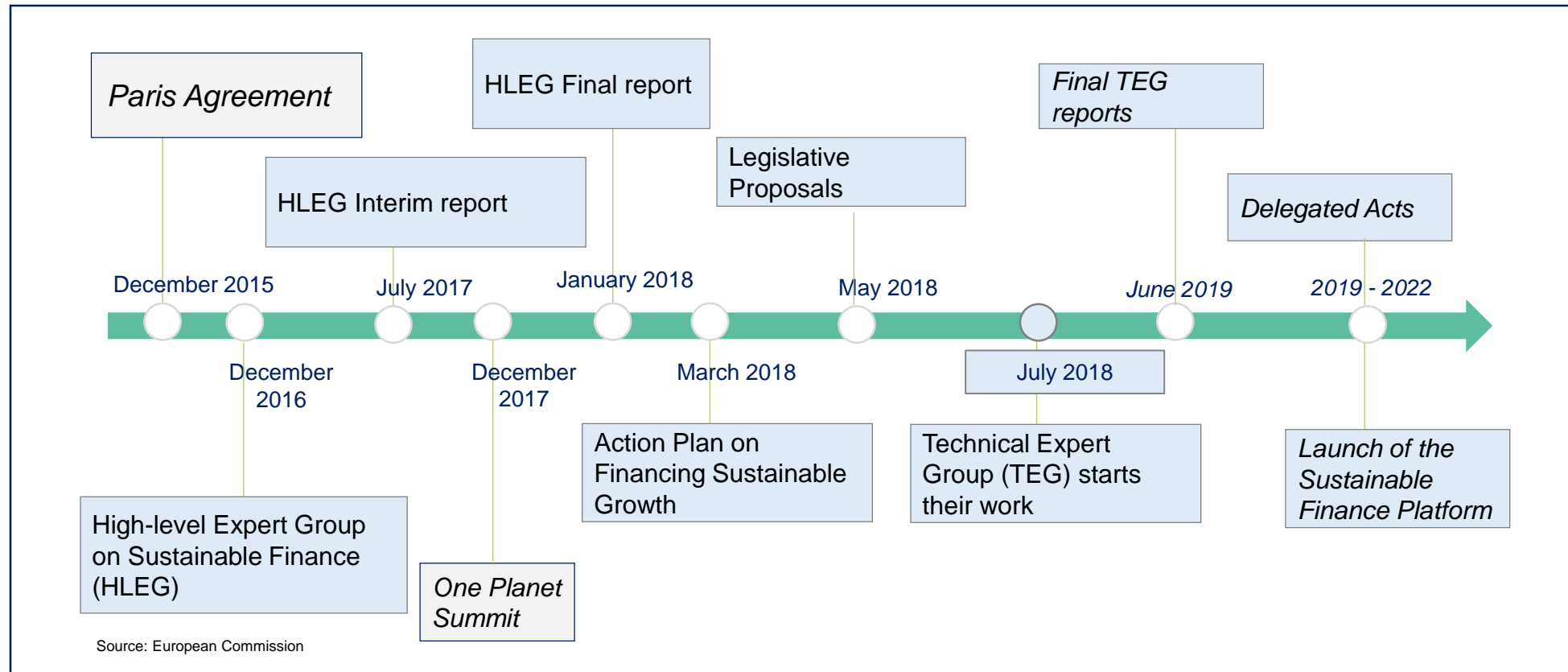


Where do we stand in the legislative process? What is next?

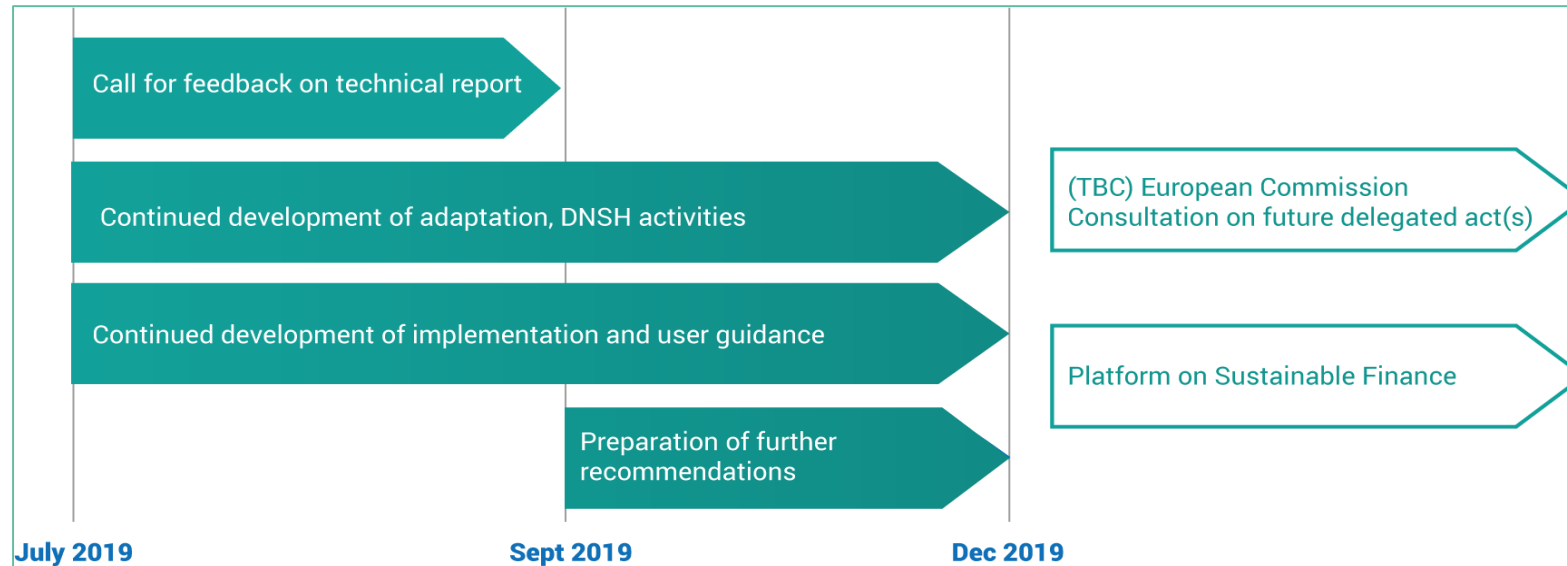


Overview of the European Union's timeline on sustainable finance

NB: the European Commission expects to adopt the **regulation and delegated acts on the taxonomy in Q4 2019 / Q1 2020**



What happens next regarding the TEG and the Taxonomy?



- ❖ The **TEG's mandate** is prolonged until December 2019.
- ❖ For the taxonomy, **public consultation is open until 13 September 2019** and feedback will be incorporated into a report submitted to the Commission late 2019. Recommendations will inform upcoming legislation and guidance.
- ❖ **Delegated Acts** to enter into force in Q1 2020.
- ❖ Creation of a **Permanent Platform on Sustainable Finance** (to oversee and update the taxonomy, periodic revision of criteria, but also to promote it within and beyond European borders, see dedicated slide)
- ❖ **Review clause** : By 31 December 2021, and subsequently every three years thereafter, the Commission shall publish a report on the application of this Regulation

What is the legal basis for the taxonomy?

The “taxonomy” to be integrated into European Law

Drafting, refining and negotiations on the two texts are conducted **in parallel** but the second (delegated acts) can only be adopted on the basis of the first (legislative act)

- 
- 1 LEGISLATIVE ACT : proposal for a Regulation on the “establishment of a framework to facilitate sustainable investment”**
 - **Regulation** (Level 1 text) : proposal from the European Commission proposed in **May 2018**. This legislative act defines **the objectives, content, scope and duration of the delegation of power** (see next slide). Proposal available [here](#) ↓
 - The European Parliament agreed on its position and proposed amendments in **March 2019**.
Amendments available [here](#) ↓
 - **The Council** is currently negotiating its position, starting from the initial text from the Commission, that will be discussed in **inter-institutional discussions (i.e. the triilogue)** that may start **next September 2019**, in order to reach an agreement on a text acceptable to both the Council and the Parliament, before adoption of the Regulation.
 - 2 DELEGATED ACT : within which the Taxonomy / technical criteria are to be included**
 - **Delegated Acts** (Level 2 text) : the European Commission adopts them on the **basis of a delegation granted in the text of an EU law**. The Commission would be empowered to adopt delegated acts to specify technical screening criteria on the basis of the “Regulation on the establishment of a framework to facilitate sustainable investment”.
 - In the meantime, the European Commission mandated the TEG to make recommendations. Delegated Acts could be adopted only once the Regulation is agreed by the Triologue.
 - **Once the Commission has adopted the Act, Parliament and Council generally have two months to formulate any objections**. If they do not, the delegated act enters into force. So Parliament and Council may revoke the delegation or express objections to the delegated act.

Adoption process & timeline

9. Is the June 2019 report the definitive version of the EU taxonomy? No. The TEG technical report published in June is not a final or official version, it is the second report. An interim report was indeed published last December, covering only 24 activities. From June 2019 to end of September 2019, market participants are invited to provide feedback through the consultation process. They will be incorporated into a final report from the TEG submitted to the European Commission late 2019 as to what the Delegated Act shall include.

10. Is the technical report from the TEG binding for the European Commission? Recommendations from the TEG will be made to the Commission that will use them when establishing the delegated act. The technical report does not constitute a legislative initiative per say and is hence not binding for the European Commission.

11. Will the EU taxonomy be embedded into hard law? The final taxonomy will be embedded into several legislative texts. At the highest level, a Regulation ([On the establishment of a framework to facilitate sustainable investment](#)) determining the guiding principles of the Taxonomy has been proposed by the European Commission in May 2018. This Regulation shall be binding in its entirety and directly applicable to all Member States. In parallel, the Commission is empowered to adopt delegated acts to specify technical screening criteria and what is considered to cause significant harm to other objectives. It is adopted by the Commission and is legally binding.

Adoption process & timeline

12. Is the approval of the Member States and European Parliament needed? Negotiations between the Council of the European Union, the European Parliament and the European Commission are ongoing for the Regulation. For the Delegated Act, after being adopted by the European Commission, it is submitted for opinion to the Parliament and the Council who can issue objections. If they do not, the delegated act enters into force.

13. When is it supposed to enter into force? The Regulation is likely to be published by the end of 2019 and should enter into force for the first two environmental objectives by 1st July 2020. In the meantime, we expect the delegated act to be adopted early 2020. Article 18 of the Regulation lays down that the operational part of this regulation (articles 3 to 12) will enter into application six months after the entry into force of the delegated acts. This means that financial market participants will not be required to apply the criteria for environmentally sustainable economic activities until they have had sufficient time to prepare for and familiarise themselves with the rules and their application.

14. Will transposition into national laws be required? A Regulation is directly applicable by all the Member States and must be applied in its entirety across the EU. It is the most binding legislative act and aims at avoiding diverging national approaches. A different choice of instrument, such as a non-binding measure or a directive (common goals are set but Member States must transpose the rules into their national law) providing minimum harmonization, would leave to Member States the discretion to define environmentally sustainable investment based on divergent classifications of economic activities.

European Commission's Proposal for Regulation “on the establishment of a framework to facilitate sustainable investment”

Article 1 sets out the subject matter and the scope of this Regulation : to set out uniform criteria to determine the environmental sustainability of an economic activity, exclusively for the purposes of determining the degree of sustainability of an investment

Article 2 contains the definitions of terms used in this Regulation.

Article 3 sets out the criteria for determining the environmental sustainability of an economic activity, for the purpose of establishing the degree of environmental sustainability of an investment

Article 4 establishes obligations on Member States and financial market participants to use the criteria set out in Article 3 in specific cases

Article 5 defines the six environmental objectives

Articles 6 to 11 further define the criteria for a substantial contribution to each environmental objective

Article 12 sets out the details for the criteria for determining when an economic activity harms any environmental objective significantly

Article 13 sets out minimum safeguards by reference to the principles and rights set out in the eight fundamental conventions identified in the International Labour Organisation's declaration on Fundamental Rights and Principles at Work

Article 14 further frames the Commission empowerment by setting out the requirements for the technical screening criteria to be established by delegated acts

Article 15 requires the Commission to establish a Platform on sustainable finance consisting of experts, which shall advise the Commission on the technical screening criteria

Article 16 governs the exercise of the delegated powers

Article 17 contains a review clause, requiring the Commission to publish a report evaluating the implementation of this Regulation and the possible need to amend it by 31 December 2021 and every three years thereafter

Article 18 sets out the date of entry into force and direct applicability of this Regulation



Source : Regulation of the European parliament and of the Council “On the establishment of a framework to facilitate sustainable investment” (May 2018) Available [here](#)

European Supervisory Authorities' roles under the proposed Regulation

The Regulation proposal from the European Commission on “the establishment of a framework to facilitate sustainable investment” refers to specific task for European Supervisors



✦ EBA and EIOPA : to ensure that EU taxonomies allow **the analysis of risk differences between bank and insurance assets/exposures** and will analyse such differences and their **possible incorporation into prudential regulation.**

✦ ESMA and EIOPA : to contribute to the **incorporation of EU taxonomies into the rules under which investment companies or pension funds are managed.**

✦ ESMA and EBA : to ensure that EU taxonomies can feed into the development of **green bond standards and other financial products green labels** and contribute to the development of such standards and labels.

✦ ESMA to ensure that EU taxonomies feed into **the construction/analysis of sustainability benchmarks** and will contribute to linking EU taxonomies with suitability assessments of financial instruments and with **corporate reporting.**

✦ EBA and EIOPA : to ensure that taxonomies are developed in such a way that they are useable for **climate scenario analysis** and, at a later stage, for **climate stress testing**, and will contribute to the development of methodologies for such scenario analysis and stress testing based on EU taxonomies.



Adoption process & agenda

15. Who will be in charge of overseeing and updating the taxonomy? A Permanent Platform on Sustainable Finance is to be created. This Platform may be composed of experts representing both the public and the private sector. Private sector experts could include representatives of relevant stakeholders, including financial market actors, academia, research institutes, associations and organizations. Public sector representatives might include experts from the European Environmental Agency, the European Supervisory Authorities and the European Investment Bank. The European Environmental Agency (EEA) will be closely involved, in particular by providing its technical knowledge to develop and update it. The European Commission will be responsible for managing the Platform (e.g. organizing its meetings and meetings of any sub-groups, reporting on the outcome, preparing legislative proposals, liaising with the ESAs and the EEA, maintaining an IT collaborative tool, reimbursing experts, performing other secretarial tasks, etc.



Future Governance of the EU taxonomy – What we know about the Permanent Sustainability Platform

- A **Permanent Sustainability Platform** is to be created to assist the Commission in the progressive development and the update of the EU classification system.
- Composition : **experts representing both the public and the private sector** (representatives of relevant stakeholders, including financial market actors, universities, research institutes, associations and organizations).
- Public sector representatives : the European Environmental Agency, the European Supervisory Authorities and the European Investment Bank, the European Supervisory Authorities (EBA, EIOPA, ESMA)
- The **European Commission** will be responsible for **managing the Platform** (e.g. organising its meetings and meetings of any sub-groups, reporting on the outcome, preparing legislative proposals, liaising with the ESAs and the EEA, maintaining an IT collaborative tool, reimbursing experts, performing other secretarial tasks, etc).
- Promotion of the EU Taxonomy beyond European borders is among the intended objectives
- Cooperation with other *fora* working on sustainable finance*

*Network of Central Banks and Supervisors for Greening the Financial System (NGFS), the Coalition of Finance Ministers for Climate Action, the International Organization of Securities Commissions (IOSCO) Sustainable Finance Network or the FSB Task Force on Climate-Related Financial Disclosures.





3

THE EU TAXONOMY : HOW IS IT SUPPOSED TO WORK?

This Chapter presents what are the economic activities covered, the 4 step process to consider an activity as eligible, the 6 environmental objectives and also the 3 “*suma divisio*” introduced by the TEG

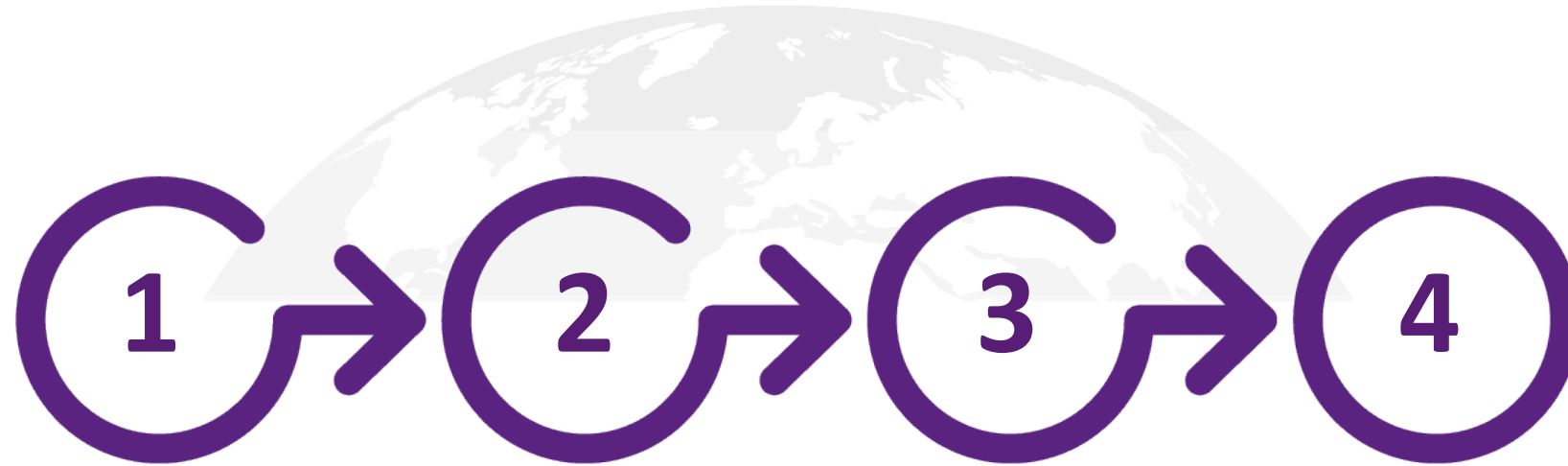
How does it work?

16. Does it provide a list of automatically eligible activities? Clearly not, it defines the conditions (i.e. criteria and thresholds) under which a given (non-exhaustive) list of activities can be considered as sustainable (and as of now only through the climate mitigation and adaptation lenses).

17. How is taxonomy eligibility determined? 4 steps are required: 1/ contribute to one or more of the 6 environmental objectives, 2/ Do no significant harm to any other environmental objective, 3/ Comply with minimum social safeguards (ILO core labour conventions) and 4/ Comply with the technical screening criteria. Existing EU environmental and sectorial legal requirements apply across the Taxonomy. Therefore, for an activity to be included, it must at minimum comply with EU legal requirements.

18. Are criteria fit for asset or organization level assessments? Theoretically yes. Though in practice not directly, given the fact that the screening is supposed to be made at activity-level, meaning some adaptation is needed at asset or entity level.

To be taxonomy-eligible, an economic activity must go through 4 steps



Contribute substantially to one or more of the 6 environmental objectives

Do no significant harm to any other environmental objective

Comply with minimum social safeguards (ILO core labour conventions)

Comply with the technical screening criteria

Out of 6 environmental objectives, solely 2 have been reviewed



The first delegated act under the Taxonomy will focus on **climate change mitigation and adaptation activities**. In later steps, it is planned to **address social and ethical aspects**.



Substantial contribution to climate change mitigation* :

- a) generating, storing or using renewable energy or climate-neutral energy (including carbon-neutral energy), including through using innovative technology with a potential for significant future savings or through necessary reinforcement of the grid;
- b) improving energy efficiency;
- c) increasing clean or climate-neutral mobility;
- d) switching to use of renewable materials;
- e) increasing carbon capture and storage use;
- f) phasing out anthropogenic emissions of GHG, including from fossil fuels;
- g) establishing energy infrastructure required for enabling decarbonisation of energy systems;
- h) producing clean and efficient fuels from renewable or carbon-neutral sources.

* As defined by the Article 6 of the proposed Regulation “On the establishment of a framework to facilitate sustainable investment” (May 2018) Available [here](#). **We regret that this concept of substantial contribution is neither defined nor framed in a sense allowing to differentiate what is incremental & BaU versus transformative and game-changing.**

Overview of the 3 main eligibility criteria with examples of activities

Abidance by standard/label/regulation

Reforestation : Sustainable Forest Management Requirement

Carbon dioxyde capture: ISO/CD 27919-2

For new buildings (national requirements for NZEB and EPC rating of B or above).

“Automatic” eligibility
(technology or practices)
best available techniques
reference documents (also
known as ‘BREFs’)

Aluminium recycling, power storage

Solar PV

Feedstock (management practices)

Wind Power

Passenger cars and commercial vehicles for EVs

Ocean Energy

Metrics with thresholds



Intensity

Passenger cars and commercial vehicles for hybrid vehicles

Manufacture of Cement

Manufacture of Aluminium

Relative
(baseline
performance)

Growing of crops (i.e. own-farm counterfactual)

Renovation of existing buildings

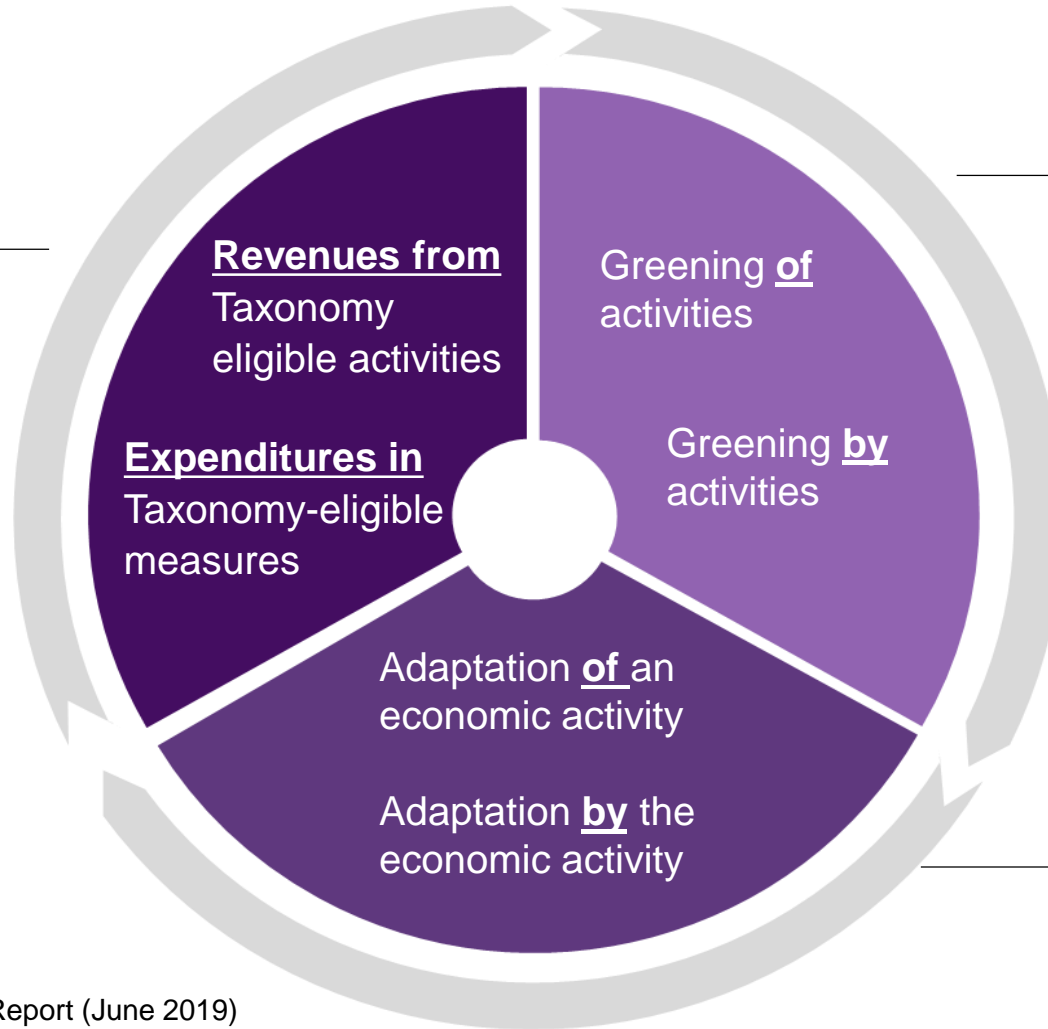
The three “*suma-divisio*” brought to the table by the TEG



The taxonomy is framed around pivotal notions addressing both risks and opportunities

Those two KPIs when combined will provide a risks and opportunities exposure analysis of any organization, being a corporate or SSA.

It will be used for stock-picking, benchmarking, engagement, risks management, etc.



A comprehensive approach has been adopted to include the decarbonization of activities where the lion’s share of GHG emissions lie (greening *of* activities) but also the key enablers that provide solutions to decarbonize other sectors (greening *by*)

The same rationale is used for adaptation to climate change, with resilience improvement of the activity itself, vs. solutions that strengthen resilience of other activities

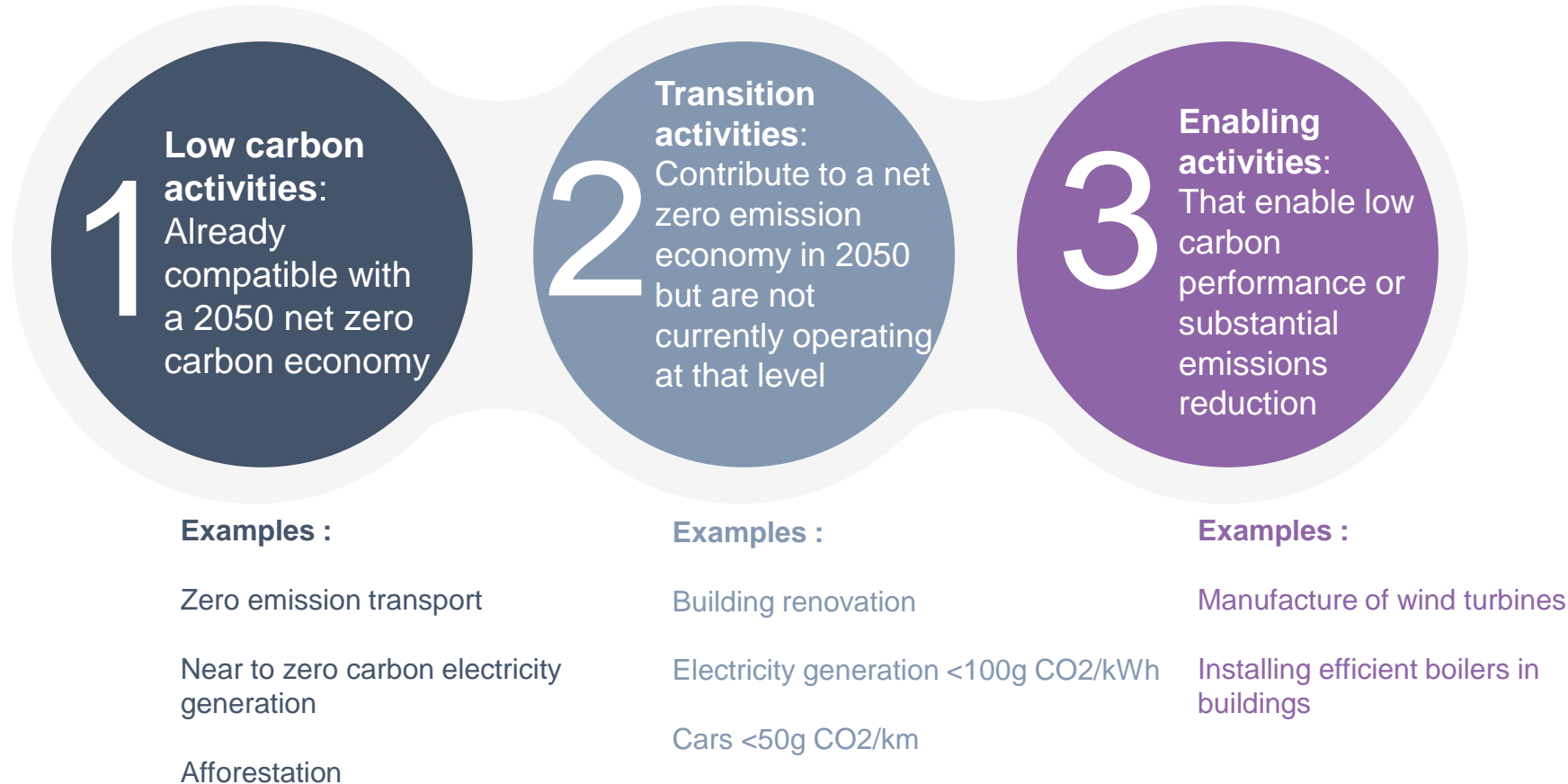
Source: Authors and TEG Technical Report (June 2019)

What makes a substantive contribution to climate change mitigation?



Three types of activities with some room for “brown activities”

Still, the taxonomy remains **binary** (you are in, or you are out) for the sake of simplicity but “brown industries” are included, albeit under extremely stringent conditions



A comprehensive approach : greening of and greening by

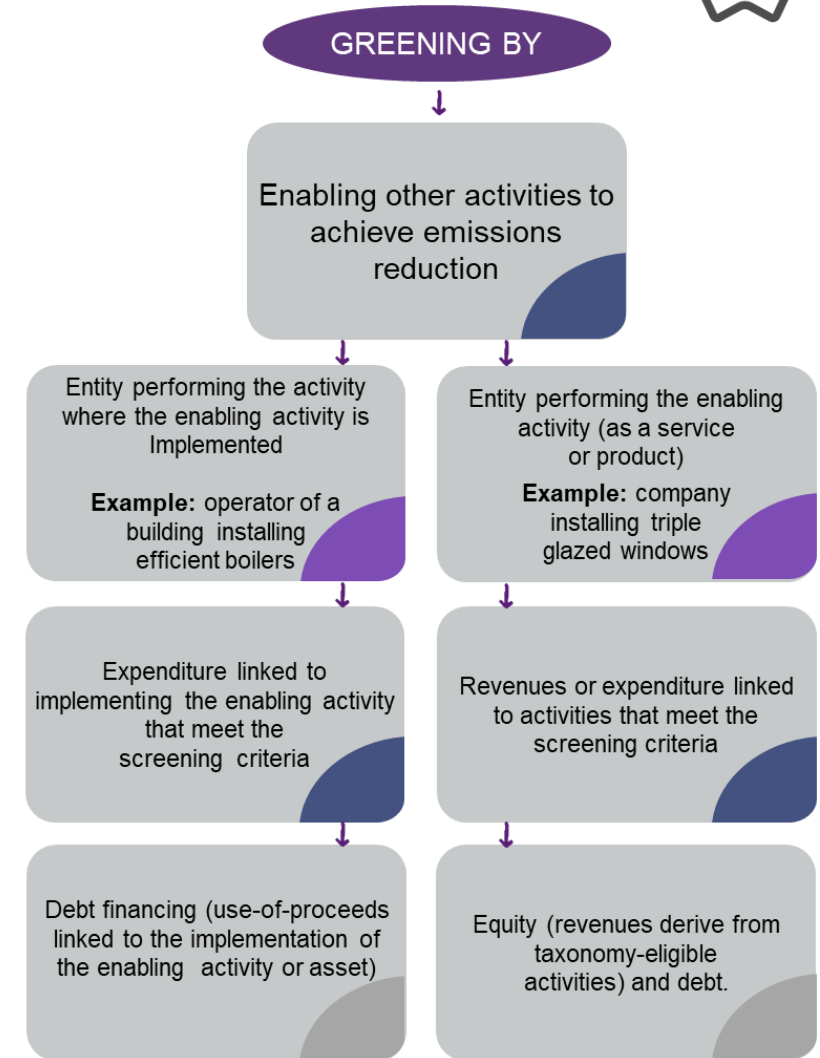
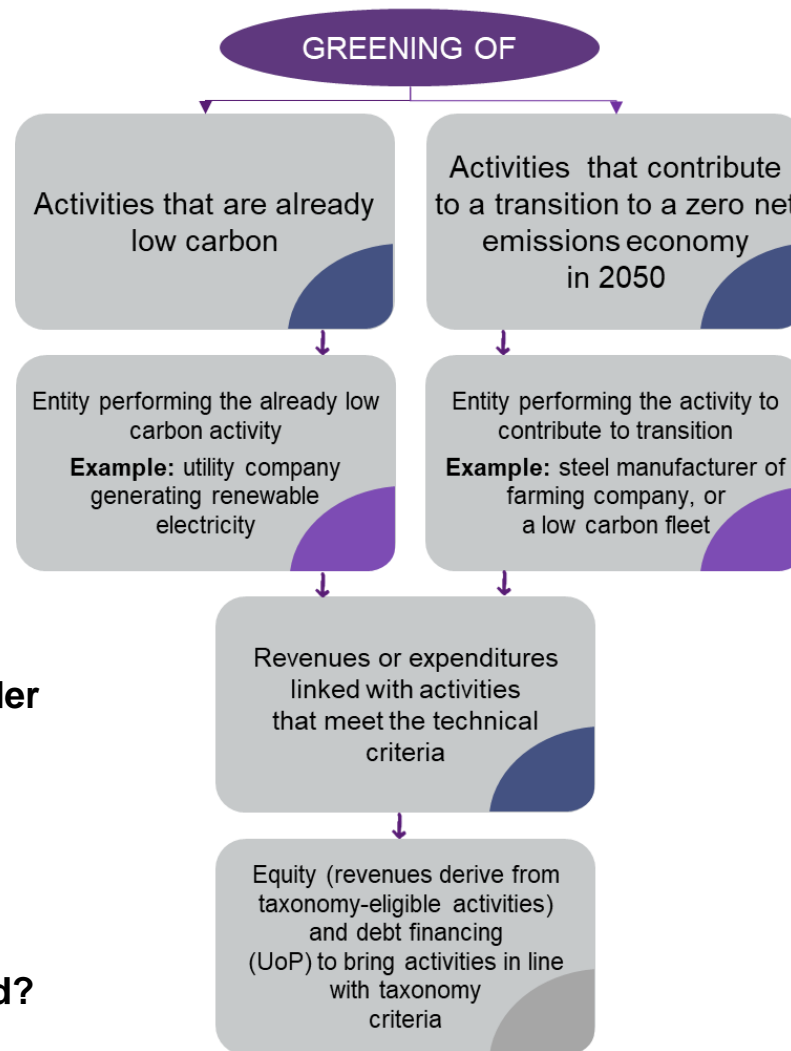


1/ How is substantial contribution defined?

2/ Who can perform this activity?

3/ What could count under the taxonomy?

4/ Which financial instruments can be used?



“Do no significant harm assessment” criteria in this 2nd round rely more on EU environmental regulation



The “do no significant harm assessment” (DNSH) section is more specific and relies more on existing regulation.

For reportedly around **70% of DNSH criteria, compliance with the Taxonomy can be demonstrated through compliance with EU environmental legislation.** This can be assessed at a company or site-level.

Illustrations of the regulations referred to for the DNSH criteria

Pollution

- BATAEL ranges set in the BREF for the Large Combustion Plants and Medium Combustions Plants Directive
- Principles of IFC General EHS Guideline
- Compliance with the REACH Regulation and the RoHS (Restriction of Hazardous Substances) Regulation
- National Emission Ceilings Directive (EU) 2016/2284
- Regulation 1304/2014 Noise TSI : for noise and vibrations of rolling stock

Water

- Chemical and ecological status : Directive 2000/60/EC
- Water Framework Directive and Bathing Waters Directive

Circular economy

- Compliance with Directive 2000/53/EC ("End-of-life of vehicles Directive")

Ecosystems:

- IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources (2018)
- EU Habitats and Birds Directives

Compliance with minimum safeguards is a condition for economic activities to qualify as environmentally sustainable

The TEG June Report states that investors using the taxonomy are expected to “Conduct due diligence to avoid any violation to the social minimum safeguards stipulated in the Taxonomy regulation (article 13)”.

What will be expected from investors (or their data providers) regarding their investees:



International Labour Organization : “if and how they comply with ILO Conventions”



- The right not to be subjected to forced labour
- The freedom of association
- Workers' right to organize
- The right to collective bargaining
- Equal remuneration for men and women workers for work of equal value
- Non-discrimination in opportunity and treatment with respect to employment and occupation
- The right not to be subjected to child labour



4

WHAT IS THE SCOPE OF ACTIVITIES COVERED?

Six macro-sectors for climate change mitigation based on GHG emissions as well as on enabling sectors (ICT) are reviewed in the TEG's Technical Report (June 2019) with subsequent proposed screening technical criteria.

What does it cover?

19. What classification of activities has been used? The classification of economic activities in the European Community (NACE). When insufficiently granular regarding green activities (e.g. Storage of energy), additional categories were created.

20. Is it compatible with other classification systems? Technically not, but matching tables of NACE Codes to the Global Industrial Classification System (GICS) reportedly exist or are soon to be.

21. Are only pure or dark green activities included? No. There are three categories: i) Activities that are already low carbon (i.e. compatible with a 2050 net zero carbon economy); ii) Transition activities (i.e. activities that contribute to a transition to a zero net emissions economy in 2050 but are not currently operating at that level*); iii) Enabling activities that facilitate low carbon performance or substantial emissions reduction.

*Technical criteria are for instance proposed for crops, livestock production, manufacture of cement, aluminum, iron and steel, organic and inorganic basic chemicals, production of electricity from gas combustion.

What does it cover?








22. What were the activities or sectors reviewed? 67 activities at a granular level across 6 macro-sectors (e.g. agriculture, power, transportation and buildings) + 1 enabling sector (ICT). See the full list *infra* in the report (slide 38) .

23. Does it exclude some activities? Apart from coal and nuclear, which is not included due to a lack of evidence on waste management, there is no formal exclusion, though it is still unclear what will happen with some sectors not covered so far (e.g. oil). Moreover, the stringency of some thresholds creates sometimes *de facto* exclusions. Lastly, high emitting sectors such as maritime shipping, aviation, mining are to be reviewed later.

24. Is it only about climate change? For the moment yes, only climate change mitigation and adaptation have been addressed by the TEG, but the “*do no significant harm assessment*” criteria already includes non-climate related objectives (e.g. pollution, protection of ecosystems, waste and circular economy). Noticeably, due to the context-specific nature of adaptation, the TEG proposes a classification of climate-related hazards and a sensitivity matrix for specific activities. Social aspects, as of today, are only taken into account through compliance with minimum social safeguards. The regulation text includes a provision to evaluate by 31 December 2021 the appropriateness of extending the scope to cover social objectives.

Pre-requisite for “eligibility” : having being technically screened

Six macro-sectors for climate change mitigation based on GHG emissions as well as one enabling sector (ICT) are reviewed in the TEG’s Technical Report (June 2019)

	Agriculture and forestry
	Manufacturing
	Electricity, gas, steam and air conditioning supply
	Water, sewerage, waste and remediation
	Transport
	Information and Communication Technologies (ICT)
	Buildings

The activities in the selected sectors represent

93.2% of GHG emissions by NACE code

(around 3,295,000,000 tons of GHG)

Technical screening of **67** different economic activities



Detailed list of the 67 activities reviewed by the TEG

Agriculture and Forestry

- Growing of perennial crops
- Growing of non-perennial crops
- Livestock production
- Afforestation
- Rehabilitation, Restoration
- Reforestation
- Existing forest management

Manufacturing

- Manufacturing of low carbon technologies
- Manufacture of Cement
- Manufacture of Aluminium
- Manufacture of Iron and Steel
- Manufacture of hydrogen
- Manufacture of other inorganic basic chemicals
- Manufacture of other organic basic chemicals
- Manufacture of fertilizers and nitrogen compounds
- Manufacture of plastics in primary form

Electricity, gas, steam and air conditioning supply

- Production of Electricity from Solar PV
- Production of Electricity from Concentrated Solar Power
- Production of Electricity from Wind Power
- Production of Electricity from Ocean Energy
- Production of Electricity from Hydropower
- Production of Electricity from Geothermal
- Production of Electricity from Gas Combustion
- Production of Electricity from Bioenergy
- Transmission and Distribution of Electricity
- Storage of Energy
- Manufacture of Biomass, Biogas or Biofuels
- Retrofit of Gas Transmission and Distribution Networks
- District Heating/Cooling distribution
- Installation and operation of Electric Heat Pumps
- Cogeneration of Heat/Cool and power from Concentrated Solar Power
- Cogeneration of Heat/Cool and power from Geothermal Energy
- Cogeneration of Heat/Cool and power from Gas Combustion
- Cogeneration of Heat/Cool and power from Bioenergy
- Production of Heating and Cooling from Concentrated Solar Power
- Production of Heating and Cooling from Geothermal Energy
- Production of Heating and Cooling from Gas Combustion
- Production of heating and cooling from Bioenergy
- Production of Heating and Cooling using Waste Heat

Water, Waste and Sewerage remediation

- Water collection, treatment and supply
- Centralized wastewater treatment systems
- Anaerobic digestion of sewage sludge
- Separate collection and transport of non-hazardous waste in source segregated fractions
- Anaerobic digestion of bio-waste
- Composting of bio-waste
- Material recovery from waste
- Landfill gas capture and energetic utilization
- Direct Air Capture of CO₂
- Capture of anthropogenic emissions
- Transport of CO₂
- Permanent Sequestration of captured CO₂

Information and Communication Technologies (ICT)

- Data processing, hosting and related activities
- Data-driven solutions for GHG emissions reductions

Transport

- Passenger Rail Transport (Interurban)
- Freight Rail Transport
- Public transport
- Infrastructure for low carbon transport
- Passenger cars and commercial vehicles
- Freight transport services by road
- Interurban scheduled road transport
- Inland passenger water transport
- Inland freight water transport
- Construction of water projects

Buildings

- Construction of new buildings
- Renovation of existing buildings
- Individual renovation measures, installation of renewable on-site and professional, scientific and technical activities
- Acquisition of buildings

What activities are missing ?



Energy efficiency of processes and infrastructure (excl. building)



Mining and quarrying: while it was supposed to be screened in this 2nd round of mitigation activities



Fishing : the TEG has developed screening criteria for agriculture and forestry, but not fishing)



Glass manufacturing, paper and pulp manufacturing



Aviation : was not considered within the scope of the work of the TEG, but says that it “should be addressed in the future considering the significance of emissions from the sector”



Maritime shipping: was considered by the TEG and says "Whilst it was evident that zero direct emissions fleets should be eligible as for other modes, criteria will also need to be established for short sea shipping where modal shift benefits can be achieved. Furthermore, it will be also important to consider approaches to maritime shipping based on the efficiency of transport fleets. Discussions in this area were not concluded during the timeframe of the TEG and should be continued in further work on the Taxonomy



2030 Agenda : There is nothing related to the SDGs despite claim of contribution. However, the SDGs are not extremely operational on climate mitigation, but could have provided interesting elements for the “do no harm” et maritime and land biodiversity (SDG 14, 15), as well as responsible consumption and production (SDG 12)



5

USES AND USERS: WHO AND HOW BINDING?

This chapter maps the different uses and users, the ones that are explicitly mentioned in the proposed Regulation and others that are optional.




Who and what is it meant for?

25. To whom is it supposed to apply? Pursuant to the Article 1 on the [Regulation](#), only to financial market participants offering financial products as environmentally sustainable investments or as investments having similar characteristics. Implicitly, the Taxonomy has a quite universal remit, hence an activity level approach. It can be used by companies, public & private, investment & retail banks, investors (institutional & retail), insurers, credit & extra-financial agency. Its main objective is to create a common set of definitions of what is green. It will be the bedrock of a wide variety of regulations, standards and market framing tools.

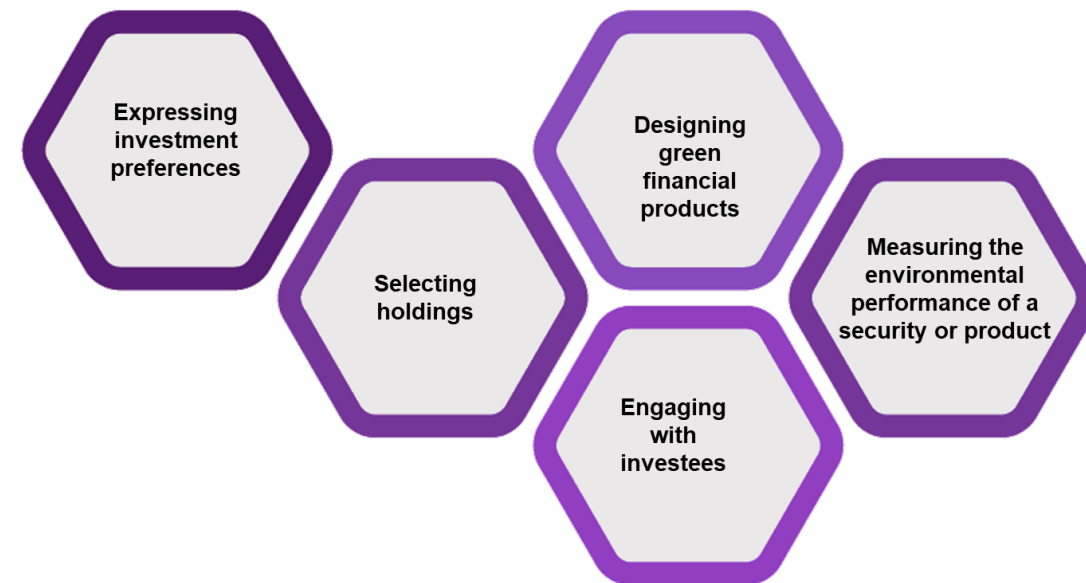
26. What are the main use cases? The Taxonomy will underpin manifold public policies and regulatory requirements or schemes, including climate-related disclosure, the EU Ecolabel of financial products, the EU Green Bond Standard (but not the [Financial low-carbon benchmarks](#), for which a specific work has been conducted in parallel by the TEG). It could also be used by Member States when establishing labels and standards. Though, as of today, the explicitly targeted audience on the road to a binding use are investors and insurers, primarily: UCITS funds and alternative investment funds (AIFs) and insurance-based investment products (IBIP).

Potential users and uses of the EU Taxonomy

In the TEG Technical Report, much emphasis is on investors or Member States (optional uses for banks are discussed later)

 <h3>Financial market participants</h3> <p><i>IN : Institutional investors and asset managers</i></p> <p><i>OUT : Securitizations, indices, venture capital or private equity conducted by investment banks do not fall under the scope of the regulation.</i></p>	 <h3>EU Member States or the EU</h3> <p><i>Requirements on market actors, financial products (mainly debt or equity), that are marketed as environmentally sustainable.</i></p> <p><i>National measures on:</i></p> <ul style="list-style-type: none">- labels for financial products and/or investments- tax incentives- public procurement rules	 <h3>Companies and/or ESG Providers</h3> <p><i>Under the Non-Binding Guidelines for Non-Financial Reporting (NFRD).</i></p> <p><i>The next Commission may decide to propose an update of the Accounting Directive (2013/34/EU), as amended by the Non-Financial Reporting Directive (2014/95/EU).</i></p>
---	---	--

Focus on the foreseeable uses of the taxonomy by investors





Taxonomy users obligations under the proposed regulation

Explicit uses and users of the taxonomy according to the TEG June 2019 report

	Disclosure obligations for products marketed as being environmentally sustainable or having similar characteristics
Asset Management	<ul style="list-style-type: none"> • UCITS funds: <ul style="list-style-type: none"> • equity funds; • exchange-traded funds (ETFs); • bond funds • Alternative Investment Funds (AIFs): <ul style="list-style-type: none"> • fund of funds; • real estate funds; • private equity or SME loan funds; • venture capital funds; • infrastructure funds; • Portfolio management.
Insurance	<ul style="list-style-type: none"> • Insurance-based investment products (IBIP)

The room is also open for investment and retail banks although they do not fall explicitly under the regulation

	Potential uses for diverse balance sheet management or product-oriented purposes
Investment banks	<ul style="list-style-type: none"> • green asset tagging • green securitization • venture capital and private equity • green index • green project finance • green corporate financing
Retail banks	<ul style="list-style-type: none"> • green product-offerings for instance for Mortgages, Car loans.

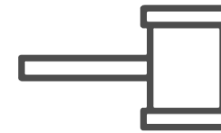
Source: EU Technical Expert Group on Sustainable Finance (June 2019), Taxonomy Technical Report, Figure 8 Users and uses of the Taxonomy

Source: Authors (Natixis GSH)

Who and what is it meant for?

27. What are other optional / potential uses? For public authorities, it could serve as a bedrock for any public policy intending to encourage re-allocation of capital flows towards transitioning economic activities: tax incentives, public procurement, recalibration of capital requirements for banks (for a potential green supporting factor). Investment banks could use the Taxonomy for diverse balance sheet management or product-oriented purposes: green asset tagging, green securitisation, venture capital and private equity, green index, green project finance, green corporate financing, etc. It could also be used for retail banking to design “green” product-offerings: for instance, for sustainable mortgages or car loans.

28. For the market participants falling under the scope of application, is the Regulation compulsory? The only requirement is a sort of “*comply or explain*” provision: investors and insurers will have to disclose how and to what extent they used the taxonomy criteria when offering products presented as environmentally sustainable. Worth mentioning is that the integration of some Taxonomy-compliance indicators into Companies’ disclosure requirements (e.g. NFRD) is evoked by the TEG in its technical report.



Compulsory or voluntary? For Whom?

According to the **Finnish presidency of the Council of the EU (27.6.19)**, financial market participants shall specify **how and to what extent the taxonomy** is used to determine the environmental sustainability of investments allegedly green. “This information shall enable investors to identify the share of investments funding environmentally sustainable economic activities as a percentage of all investments selected for the financial product”.

Literally, the taxonomy is not mandatory unless you as investors market products claimed as environmentally beneficial. Note that several countries, including France, seem to support a more systematic and explicit “**comply or explain**” requirement. **The Article 4 establishing obligations on Member States and financial market participants to use the technical criteria is still under intense discussion and the text might evolve.**

In our view, apart from the pure legal status of the regulation, the taxonomy is likely to be used for a large array of public policies, including from investors (public pension funds, etc.), and therefore to progressively become a standard.



Legal status of the technical criteria

Some Member States advocate that the technical criteria developed by the TEG (including thresholds) would be passed as level 3 acts (i.e. guidelines and recommendations, Q&A) rather than as level 2 acts as currently proposed (delegated and implementing acts).

The trend towards stricter transparency duties of financial intermediaries to end-investors with regard to sustainability risks and investment targets

The Regulation on Disclosures Relating to Sustainability Risks and Sustainable Investments was approved in May 2019. According to it, financial market participants who offer a fund targeting sustainability objectives must disclose :

- i) What these objectives are and the methodologies used to assess
- ii) Measure and monitor progress against these objectives
- iii) An assessment of the overall sustainability-related impact of the financial product

Apart from law requirements, what is the likelihood of large-scale adoption of the taxonomy?

Sovereign or Government controlled investors likely to lead the way in taxonomy integration

Considering the fact that Sovereign or Government controlled asset owners, asset managers are often **sustainable finance pioneers and forerunners**, it is reasonable to think that they will be the first to adopt the EU Taxonomy and therefore expect taxonomy – compliance reporting from their investees.

Their appropriation of the EU Taxonomy might have tremendous spill-over effects. For instance, la Caisse des Dépôts et Consignations in France is the first shareholder of the CAC40.

Among good candidates for integration of the EU Taxonomy in investment decisions/processes:



Source: Authors (Natixis GSH)



What may the Taxonomy imply in terms of companies' disclosure

The TEG report states : “*in a near future, companies **could have a “Taxonomy profile”***”

One wonders the likelihood of a stepwise phase out of reporting according to companies own designated activity categories to begin reporting in line with the Taxonomy.

Companies that choose not to report in line with the Taxonomy may be penalized by investors as their Taxonomy-aligned revenue will have to be estimated or disregarded.

The TEG Report **does not** propose minimum thresholds for the share of sustainable activities at company or at portfolio-level.

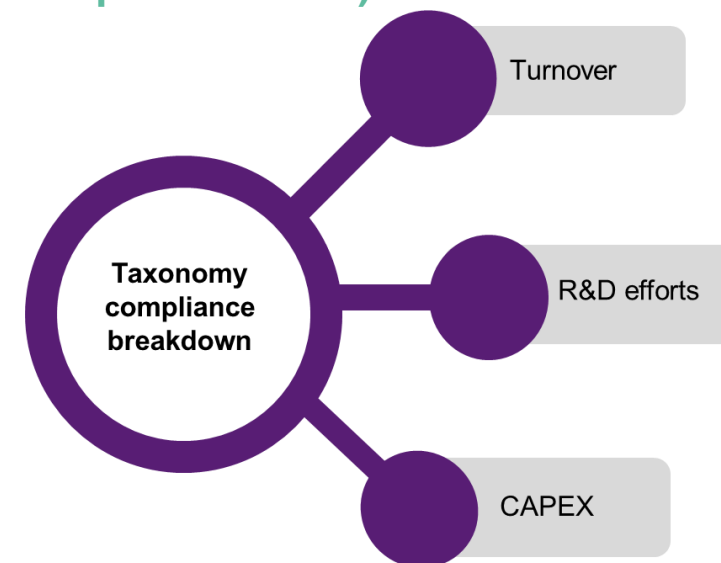
Though, the future voluntary **Ecolabel for financial products** is expected to establish thresholds at holding and/or portfolio level.



Current Challenges

Listed companies and financial institutions operating globally
How to manage partial compliance?

Illustration of contemplated KPIs (to be expressed in %)



What are users expected to do?

29. Why should I use it if not mandatory? The plan is to set a standard, that might in some shape or another be used into diverse pieces of regulations or incentive mechanisms in the future. In the meantime, it is likely to become market practice and set standards. One would foresee in the first place that institutional investors will expect such disclosure to inform their investment decisions. Similarly, it is also reasonable to think that banks (and organizations such as the Loan Market Association) will integrate the taxonomy in their green financing products. Companies may benefit from enlarged investor basis in the case of the EU Taxonomy-compliant activities financed through Green Bond Standard compliant bonds.

30. Who is supposed to carry the taxonomy compatibility analysis? All sorts of stakeholders will contribute to the analysis of whether a product marketed as environmentally sustainable is indeed taxonomy-compliant: primarily companies and financial institutions (for their own activities and for their investment / financial products). But it is reasonable to think that we will observe the development of an *ad hoc* service by ESG rating agencies, Second Opinion providers, consultants and auditors.

31. Will companies have to report upon the taxonomy and what? In parallel of the TEG report, the EU Commission has published [new non-binding guidelines on corporate climate-related information reporting](#) for large listed European companies. Disclosure of KPIs such as the amount (expressed in %) of expenditures and revenues that are taxonomy-compliant is encouraged. As mentioned above, it is being discussed whether such recommendations will penetrate disclosure related regulations (cf. NFRD Directive).

What are users expected to do?

32. Will market participants have to formally declare if they use the taxonomy? A voluntary and explicit opt-in regime for issuers and companies is currently being discussed at the Council level, with no assurance that it will actually be adopted. It would mean that the use of taxonomy would have legal implications for them.

33. Who will verify the robustness of the taxonomy compliance claims? No one explicitly for the moment and no sanction is mentioned at this stage. The opt-in regime would enable the competent authority to react, in a case of misleading disclosure. For investors and insurers, we could expect the European Securities and Markets Authority (ESMA) and the European Insurance and Occupational Pensions Authority (EIOPA) to be entrusted with such monitoring. National supervisors such as the Autorité des marchés financiers (AMF) or The Federal Financial Supervisory Authority (BaFin) could be involved. It is though, worth mentioning that the Green Bond Standard and the Disclosure guidelines (which both embed Taxonomy related features), both recommend / require the recourse to an external verifier, whose mandate would be very likely to integrate the Taxonomy-compliance checks.

34. Does it replace the Green Bond / Loan Principles or Climate Bond Initiative? No, the taxonomy does not preclude other market-led initiatives and is actually likely to feed them on the eligibility criteria front for climate mitigation / adaptation topics. Please note that Green Bond / Loan Principles cover a much wider scope of environmental sustainability topics beyond climate.

4

EXAMPLES OF ACTIVITIES: HOW USABLE AND STRINGENT IS IT?



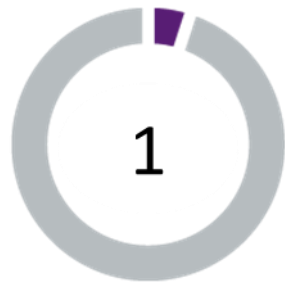
—

In this chapter, we share a preliminary assessment of 9 economic activities in terms of usability and stringency, using a four-level scale range. We will refine our assessment over time. Additional activity evaluation sheets are available upon request.

Our stringency assessment scale

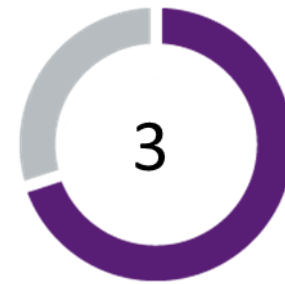


We have developed a four-level scale to assess the stringency of the technical criteria proposed by the TEG, ranging from 1 being the less stringent to 4 being extremely stringent



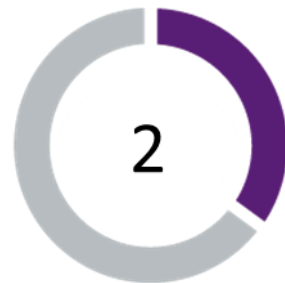
1

Easily achievable and accessible as it matches market best practices and is already widespread at commercial scale



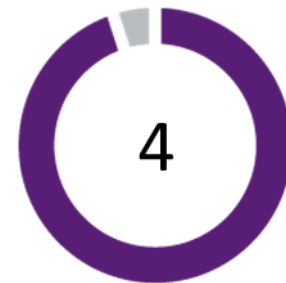
3

Challenging criteria or thresholds and limited to cutting edge-technologies and/or requiring significant extra costs (e.g. CCS) that would need for instance high carbon pricing



2

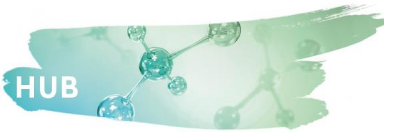
Demanding but realistic with regards to Best Available Technologies and costs analysis (with co-benefits)



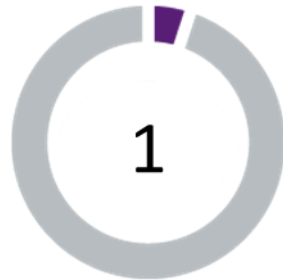
4

Out of reach, theoretical and unrealistic on the short term (breakthrough unproven technologies)

Our usability assessment Scale

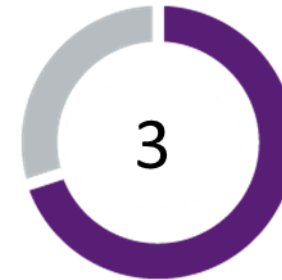


We have developed a four-level scale to assess the usability of the technical criteria proposed by the TEG, 1 being very limited to 4 being extremely usable



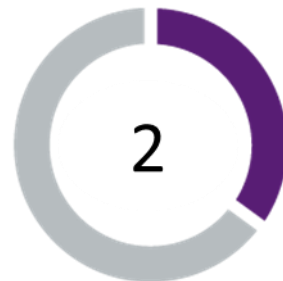
1

Very limited usability because of the lack of data and capacity to fill the indicators, and/or too qualitative criteria



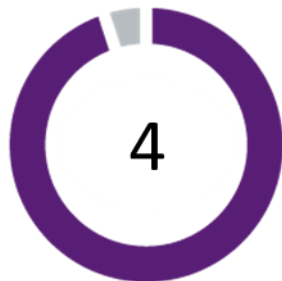
3

Usable but not immediately, as it will require some adaptation and the upgrading of the company processes



2

Challenging as it requires significant additional data collection and information system changes

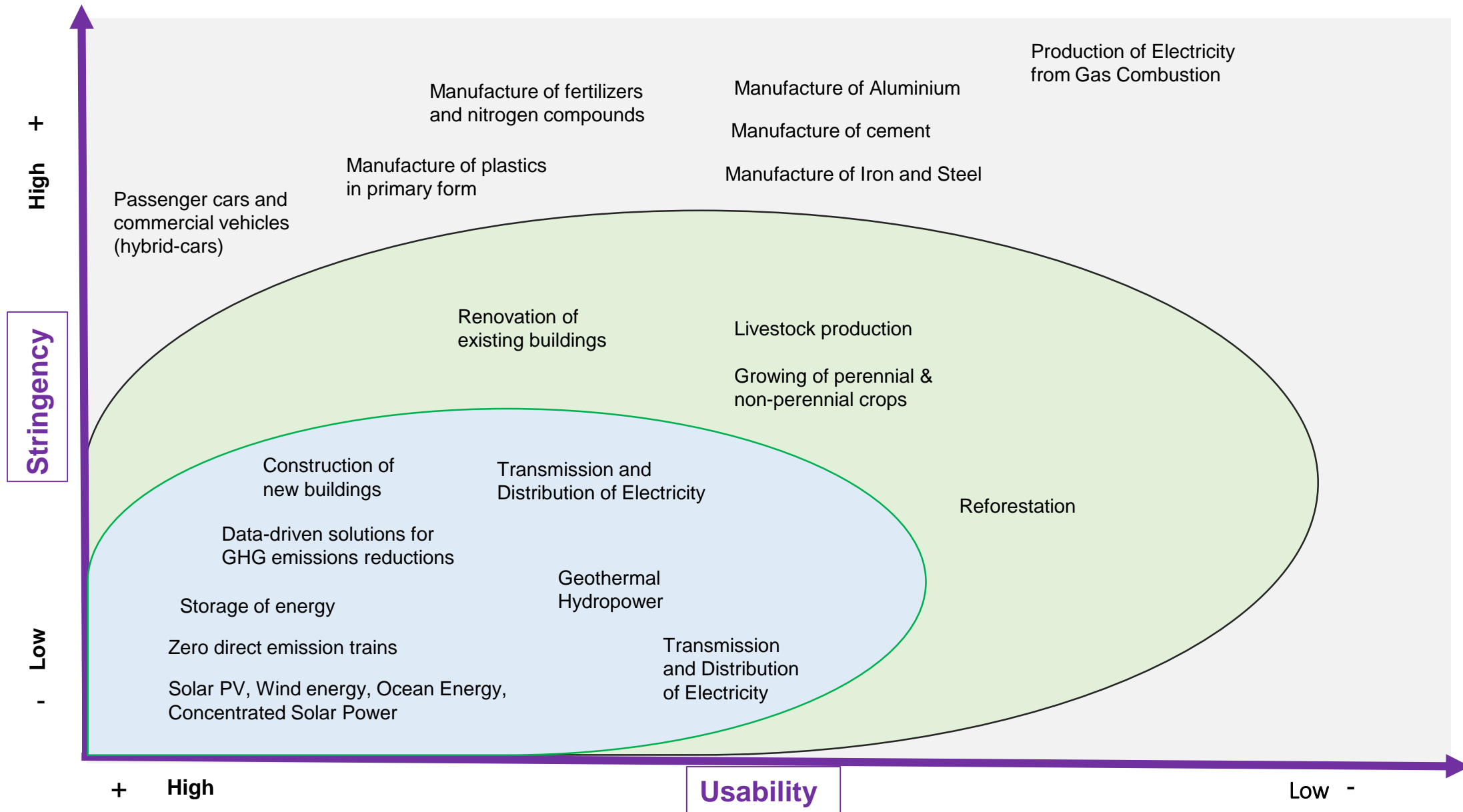


4

Usable as of now or very easily on the short term

How stringent and usable ? Our preliminary assessment

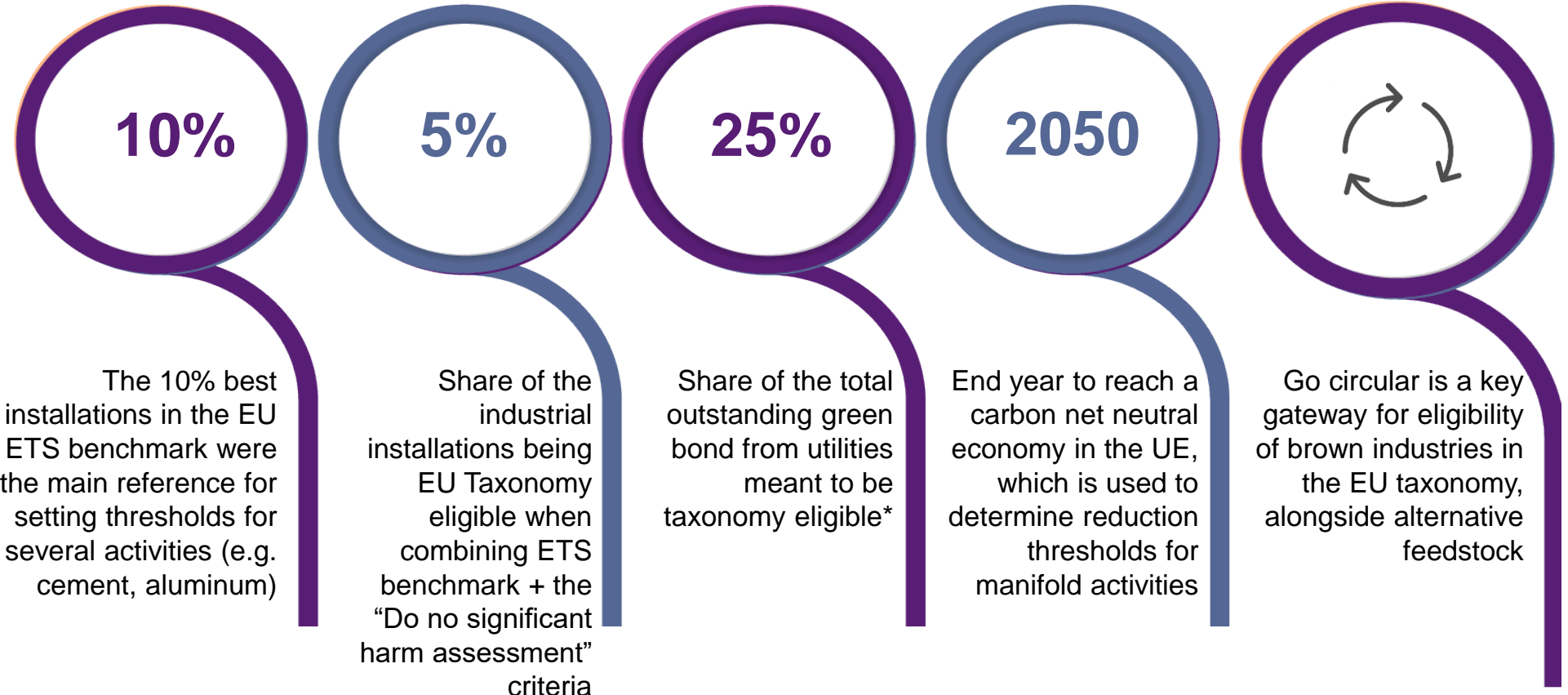
(on a sample of activities)



Are the technical screening criteria stringent ?

The TEG report hints that the EU’s climate policy will involve the phase-out of some economic activities, such as unabated fossil fuel-based power generation.

The selection of figures below demonstrate the level of stringency chosen by the TEG.



* We find it hard to reconcile the € 10 Bn eligible utilities’ Green Bonds proceeds (TEG data) out of €42 Bn (Natixis GSH data) of outstanding green bonds issued by utilities in EUR



Production of Electricity from Gas Combustion

Classification

Macro sector : Electricity, Gas, Steam and Air Conditioning Supply

Code: D.35.1.1 (pages 251-252)

- Already low carbon
- Transition activities
- "Enabling activities"
- Adaptation activities

Main features

- Intensity (e.g. gCO2/KWh, gCO2/pkm)
- In relative (gains in %, e.g. 30% in energy savings for renovation of buildings)
- Emissions covered :
 - scope 1 scope 2 scope 3
- Technology or practices criteria (automatic, e.g. solar PV, crop rotation)
- Label / standard / regulation : Sustainable Forest Management (SFM, NZEB)

Metric & threshold

Facilities operating at life cycle emissions lower than **100gCO2e/kWh**, declining to 0 gCO2e/kWh by 2050, are eligible.

LCE must be carried using an ISO 14044-compliant Life Cycle of Emissions (LCE) assessment to tackle the issue of fugitive emissions across the gas supply chain (gas extraction / transport and storage systems).

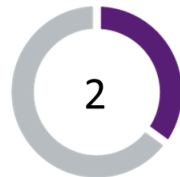
Natixis' GSH view



Stringency



Usability



Discrepancy with standards
GBP CBI



Do no significant harm & Minimum Social safeguards

BATAEL* ranges set in the BREF** for the Large Combustion Plants and Medium Combustions Plants Directive

Comments:

Gas is kind of *de facto* excluded. Furthermore, this threshold will be reduced every 5 years in line with a net-zero CO2e in 2050 trajectory. This will be subject to the requirement that fugitive emissions across the gas supply chain need to be physically measured rather than estimated.

* BATAEL : Best Available Techniques Associated Emission Levels

** BREF : Best available techniques Reference document

Passenger cars and commercial vehicles



Classification

Macro sector : Transportation and storage

Code: no code (pages 339-342)

- Already low carbon
- Transition activities
- "Enabling activities"
- Adaptation activities

Main features

- Intensity (e.g. gCO2/KWh, gCO2/pkm)
 - In relative (gains in %, e.g. 30% in energy savings for renovation of buildings)
 - Emissions covered :
 - scope 1 scope 2 scope 3
- Technology or practices criteria (automatic, e.g. solar PV, crop rotation)
- Label / standard / regulation : Sustainable Forest Management (SFM, NZEB)

Metric & threshold

For passenger cars and light commercial vehicles:

1/ Zero tailpipe emission vehicles (incl. hydrogen, fuel cell, electric). These are automatically eligible.

2/ Vehicles with tailpipe emission intensity of max 50 g CO2/km (WLTP) are eligible until 2025.

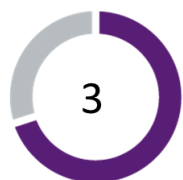
From 2026 onwards only vehicles with emission intensity of 0g CO2/km (WLTP) are eligible.

For category L vehicles: Zero tailpipe emission vehicles (incl. hydrogen, fuel cell, electric).

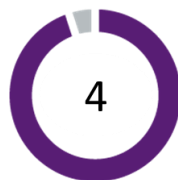
Natixis' GSH view



Stringency



Usability



Discrepancy with standards
GBP CBI



Seems more stringent than CBI but hard to calculate due to CBI's calculation formula

Do no significant harm & Minimum Social safeguards

- Compliance with Real driving emission (RDE) performance which is at the most equal to 0.8 times the Euro 6 limit values for NOx and PN
- Directive 2000/53/EC ("End-of-life of vehicles Directive")
- Regulation (EU) No 540/2014 on the sound level of motor vehicles

Comments:

The threshold is extremely demanding, heavy plug in hybrid vehicles are *de facto* excluded. Out of the 5 PHEV models referenced in [Ademe's database car labelling](#), only 2, the VOLVO V90 T8 Twin Engine and the MERCEDES C 350 e would pass the criteria. For conventional ICE vehicles, it is clearly out of reach. We hope this stringency will be maintained, it would encourage car-makers to scale-up their electrification strategies.

Transmission and Distribution of Electricity



Classification

Macro sector : Electricity, Gas, Steam and Air Conditioning Supply

Code: D.35.12, D.35.13 (pages 256-258)

- Already low carbon
- Transition activities
- "Enabling activities"
- Adaptation activities

Main features

- Intensity (e.g. gCO₂/KWh, gCO₂/pkm)
- In relative (gains in %, e.g. 30% in energy savings for renovation of buildings)
- Emissions covered :
 - scope 1 scope 2 scope 3
- Technology or practices criteria (automatic, e.g. solar PV, crop rotation)
- Label / standard / regulation : Sustainable Forest Management (SFM, NZEB)

Metric & threshold

Option 1 : country-specific

Automatic eligibility in systems which are on a trajectory to full decarbonization (i.e. where the weighted emissions factor of incremental new generation is below 100 gCO₂e/kWh on a five-year rolling average basis)

EXCEPT for infrastructure dedicated to directly connecting, or expanding existing direct connection to production plants that are more CO₂ intensive than 100 gCO₂e/kWh

Option 2 : asset-specific

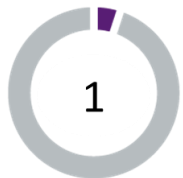
Eligibility irrespective of the system, for (non exhaustive) :

- Direct connection of electricity generation < 100 gCO₂e/kWh
- EV charging stations, electric infrastructure for public transport
- T&D transformers that comply with the Tier 2 (2021) requirements from Regulation 548/2014 on the ecodesign [...]
- Equipment where the main objective is an increase of the generation or use of renewable electricity generation (*)
- Equipment to increase the controllability and observability of the electrical power system
- Sensors and measurement tools, Communication and control, Equipment to carry information to users for remotely acting on consumption; Equipment to allow for exchange of renewable electricity between users

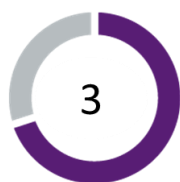
Natixis' GSH view



Stringency



Usability



Discrepancy with standards
GBP CBI



Do no significant harm & Minimum Social safeguards

- Underground power line (IFC general EHS Guidelines)
- IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources (2018)
- Do not use PCBs Polychlorinated Biphenyls

Comments:

These metrics & thresholds demonstrate a clear vision that (the increased use of) electricity is the queen tool to decarbonization. For instance, in Germany, it is likely that all T&D infrastructures would be eligible because of their crucial supporting role in the deployment of renewable energies. We would argue that sole focus on marginal capacity carbon intensity might prove challenging when it comes to brownfield investments in very highly intensive grids. Though most of the metrics proposed are straightforward (except (*)) and seem fairly usable .

Storage of energy



Classification

Macro sector : Electricity, Gas, Steam and Air Conditioning Supply

Code: no code (pages 259-260)

- Already low carbon
- Transition activities
- "Enabling activities"
- Adaptation activities

Main features

- Intensity (e.g. gCO2/KWh, gCO2/pkm)
- In relative (gains in %, e.g. 30% in energy savings for renovation of buildings)
- Emissions covered :
 - scope 1 scope 2 scope 3
- Technology or practices criteria (automatic, e.g. solar PV, crop rotation)
- Label / standard / regulation : Sustainable Forest Management (SFM, NZEB)

Metric & threshold

All investments in electricity storage are eligible except:

- Any storage technology which uses hydrocarbons as a medium of storage is not eligible under the Taxonomy.

Hydrogen:

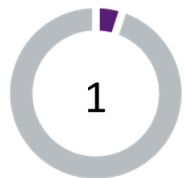
- Infrastructure to store taxonomy-eligible hydrogen is included*, meaning :
 - Direct CO2 emissions : 0.95 tCO2e/t Hydrogen
 - Electricity use for hydrogen produced by electrolysis : at or lower than 50 MWh/t
 - Average carbon intensity of the electricity produced that is used for hydrogen manufacturing : at or below 100 gCO2e/kWh

*The thresholds set for Taxonomy-compliant hydrogen generation reflect the performance of electrolysis with low carbon energy as defined in the electricity generation activities, and could also be achieved with CCS.

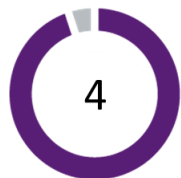
Natixis' GSH view



Stringency



Usability



Discrepancy with standards
GBP CBI



Do no significant harm & Minimum Social safeguards

- Eco-design strategies
- Minimize waste generation
- European Directive 2018/849 on end-of-life vehicles, batteries and accumulators and waste batteries and accumulators, and waste electrical and electronic equipment.

Comments: the construction and operation of storage facilities are included. The principle and metric are simple. Demand-side management is not included. Do no Harm on eco-design & waste generation could have been strengthened (or more specific) and formally included some attention to raw materials extraction.

Manufacture of Cement



Classification

Macro sector : Manufacturing
Code: C23.5.1 (Page 191-196)

- Already low carbon
- Transition activities
- “Enabling activities”
- Adaptation activities

Main features

- Intensity (e.g. gCO2 per unit of product)
- In relative (gains in %)
- Emissions covered :
 - scope 1 scope 2 scope 3
- Technology or practices criteria (automatic, e.g. solar PV, crop rotation)
- Label / standard / regulation : Sustainable Forest Management (SFM, NZEB)

Metric & threshold

GHG emission intensity – direct emission only

Threshold : EU ETS Benchmark (last update in 2011)

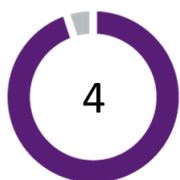
As of June 2019, EU ETS benchmark stand at :
• **0.766 tCO2e/t of clinker**

Based on the benchmark, the TEG calculated the GHG emission intensity for the manufacture of cement (clinker to cement ratio was set at 0.65):
• **0.498 tCO2e/t of cement**

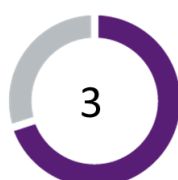
Natixis' GSH view



Stringency



Usability



Discrepancy with standards
GBP CBI



Do no significant harm & Minimum Social safeguards

- Air pollution by fossil fuel combustion
- Raising water stress
- Soil and groundwater contamination

Comments:

Metrics chosen match sector’s tracked metrics. Though, the EU ETS benchmark levels seem very far from current market practice : they are equivalent to the 2040-2045 emission intensity levels needed for 2-degree alignment*. Noteworthy, indirect emission (i.e. electricity, heating, grinding and transportation) is not covered by the EU Taxonomy, which accounts for up to 10% of the total GHG emission. **

* Natixis’ GSH’s analysis based on the benchmarks in Sectorial Decarbonisation Approach (SDA) , a scientific methodology that breaks down global carbon budget to corporate level and describes the decarbonisation trajectory for 2 °C alignment. Source: Aligning corporate greenhouse-gas emissions targets with climate goals”. Nature. 2015.

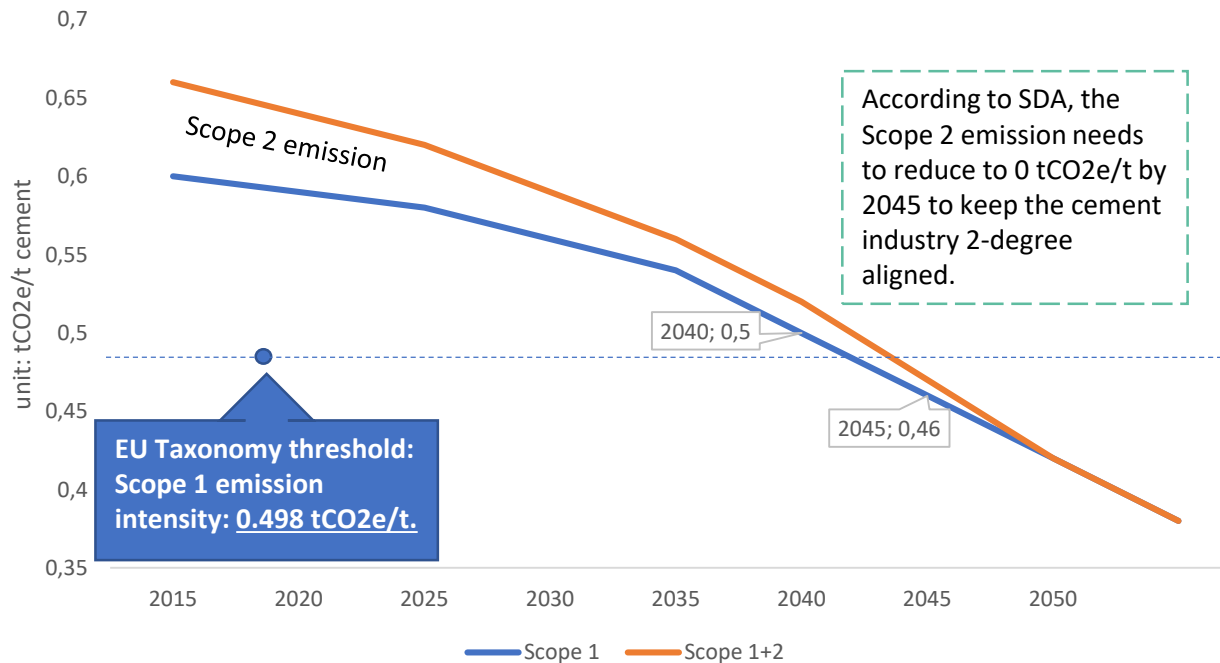
** Making Concrete Change Innovation in Low-carbon Cement and Concrete. Chatham House, June 2018.



Manufacture of Cement

Zoom-in: EU-ETS benchmark vs. 2°C alignment

Sectorial Decarbonisation Approach - Cement



Source: "Aligning corporate greenhouse-gas emissions targets with climate goals". Nature. 2015.

The TEG indicates the EU-ETS benchmark is chosen as threshold as it reflects the **average performance of the 10% most efficient installations in a sector**, and theoretically covers the top 5% of installations in EU (market cap). However, our analysis shows these levels are extremely stringent and probably out of reach for most producers. The chosen threshold is equivalent to the 2040-2045 sectorial emission intensity under 2°C alignment.

By comparing the database from Transition Pathway Initiative (TPI), we find that at corporate level, none of the leading cement producers with publicly available carbon intensity data are able to meet the EU Taxonomy threshold before 2020, at group level.

Only the emission targets set by **Ambuja Cements** and **LafargeHolcim** are stringent enough to make the two companies Taxonomy eligible in 2020 and onwards.

- Ambuja Cement (2020: 0.517; 2025, 0.490), and
- LafargeHolcim (2020: 0.516; 2025: 0.485). *

At facility level, however, the most cutting-edge / pilot projects might be EU taxonomy compliant, thanks to technology innovation, aggressive decarbonization in power mix and/or the employment of CCS, etc.

* The TPI database documents the emission intensity based on Scope 1+2, and does not separate the two scopes. We assume Scope 2 emission intensity is held constant at 10% of the Scope 1 emission intensity, then the Taxonomy-eligible Scope 1+2 emission intensity should be 0.54 tCO2e/t.

Manufacture of Aluminum



Classification

Macro sector : Manufacturing
Code: C24.4.2 (Page 197-200)

- Already low carbon
- Transition activities
- “Enabling activities”
- Adaptation activities

Main features

- Intensity (e.g. gCO₂/KWh, gCO₂/pkm)
- In relative (gains in %, e.g. 30% in energy savings for renovation of buildings)
- Emissions covered :
 - scope 1 scope 2 scope 3
- Technology or practices criteria (automatic, e.g. solar PV, crop rotation)
- Label / standard / regulation : Sustainable Forest Management (SFM, NZEB)

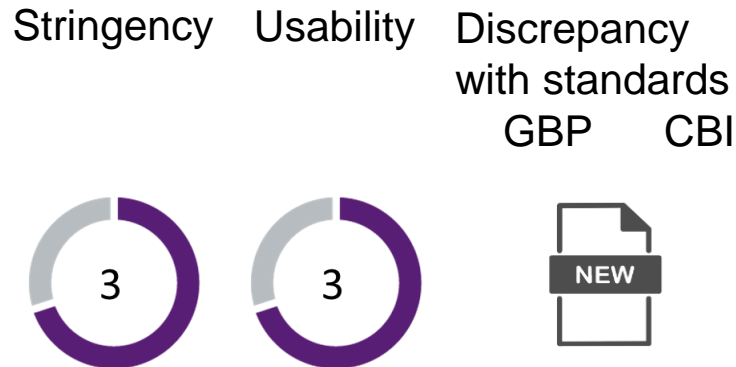
Metric & threshold

1 - Primary aluminum production needs to meet **all three EU ETS Benchmarks for :**

- ✓ Direct emission intensity : t CO₂e/t of aluminum
- ✓ Electricity consumption for electrolysis : MWh/t
- ✓ Indirect emissions : Electricity carbon intensity for electrolysis (gCO₂e/kWh), strong focus on share of low carbon electricity
As of June 2019, EU ETS benchmarks stand at (last update in 2011) :
- ✓ Direct emission intensity: **1.514 tCO₂e/t**
- ✓ Electricity consumption for electrolysis: **15.29 MWh/t**
- ✓ Electricity carbon intensity for electrolysis: **100 g CO₂e/kWh**

2 - Secondary aluminum production - All aluminum recycling is eligible due to significantly lower emissions than primary production.

Natixis' GSH view



Do no significant harm & Minimum Social safeguards

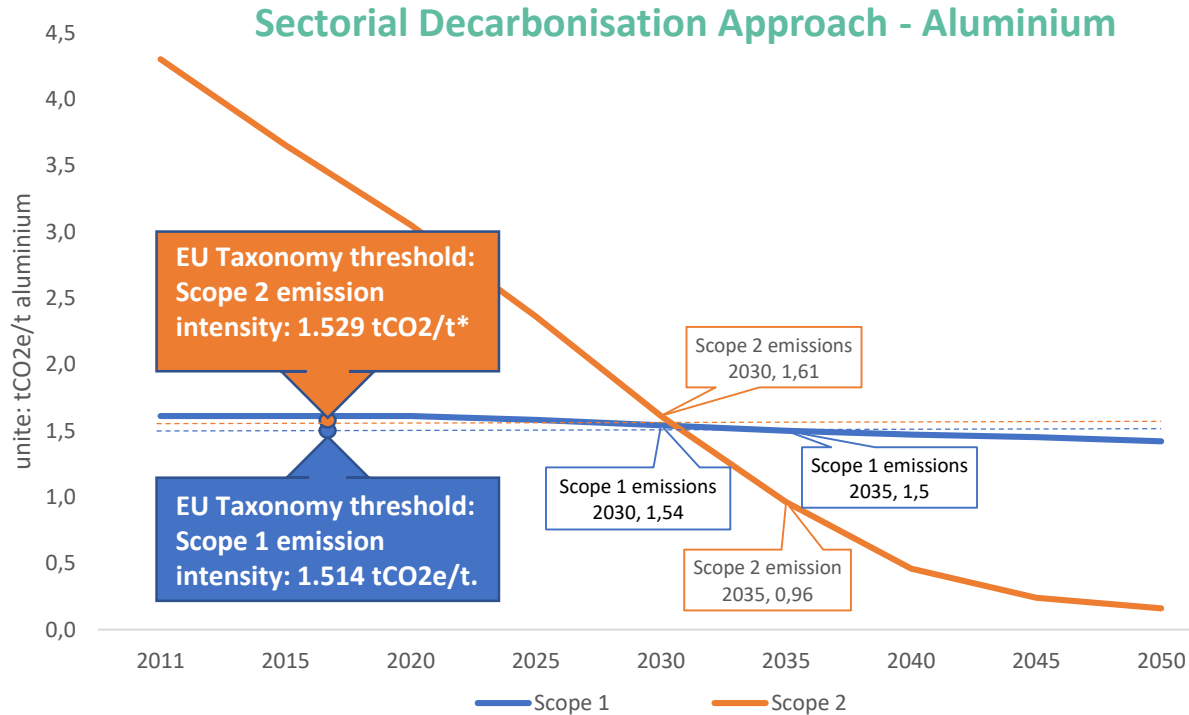
- Air pollution (i.e. PFC, PAHs, PMs, HF...)
- Damage to ecosystem (compliance with EU Directives 2014/525/EU and 2001/42/EC & IFC Performance Standards)
- Groundwater contamination and pollution of local water courses due to spent pot lining (SPL) treatment
- The ability/lacking therefore recycled scrap in the production
- Appropriate mitigation in Protected areas

Comments:

The technical criteria is clear cut and in line with sectors' usually tracked KPIs. Data should be available. The thresholds are stringent: according to our calculations, that is equivalent to the direct emission level of 2030-2035 under the 2-degrees scenario. Only a few investments in the sector will end up being eligible. The strong role of Aluminum in a low carbon economy (light weight products & electrification) is recognized under the “Manufacture of other low carbon technologies” provided demonstration of emissions reduction for the “enabled” activity.

Manufacture of Aluminum

Zoom-in: EU-ETS benchmark vs. 2°C alignment



Source: EU Taxonomy Technical Report, June 2019; “Aligning corporate greenhouse-gas emissions targets with climate goals”. Nature. 2015.

* In the EU Taxonomy TEG 2019, indirect emission is measured separately as **electricity consumption for electrolysis** (15.29Mwh/t), and as **average carbon intensity of electricity used for primary aluminum production** (100g CO2e/kWh). Based on our calculation, the threshold for Scope 2 emission (carbon emission from electricity consumption) is set at **1.529 tCO2e/t**. That’s roughly the ~2030 Scope 2 emission level under SDA 2DS.

The TEG indicates that the EU-ETS benchmark was chosen as threshold as it is supposed to reflect the **average performance of the 10% most efficient installations in a sector**, and theoretically covers the top 5% of installations in EU (market cap).

As public disclosure on emission intensity in the sector is very limited, we refer to Transition Pathway Institute (TPI)’s database on its own assessment on the GHG emission level of major aluminium producers. According to TPI, at corporate level, as of 2017, **none of the climate targets (for scope 1 + scope 2) published by major aluminum producers seem to be EU Taxonomy compliant**, including those using significant renewable generated electricity in their production, such as **Norsk Hydro or Rio Tinto**.

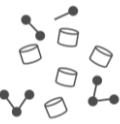
In addition, all available targets set by industry players beyond 2020 would all exceed the EU Taxonomy suggested thresholds.

According to our calculations, Scope 2 TEG suggested thresholds correspond to SDA modeled 2DS alignment levels needed by 2030/35. Worth noting that the scope 1 gap between EU ETS benchmark and suggested thresholds is much less stringent / out of reach than that of Scope 2. Though Scope 2 (indirect emission) accounts for up to 70% of the GHG emission from aluminum production today. In the long-term, Scope 2 emissions can be fully decarbonized with the deployment of zero-emission electricity.

Though, at facility level, the most cutting-edge / pilot projects (inert anode, super power cells, etc.) might be EU taxonomy compliant, thanks to technology innovation, aggressive decarbonization in power mix and/or the employment of CCS, etc.

Practically speaking, *only* aluminum production under **the circular economy scheme** or those equipped with **cutting-edge technology** are likely to qualify as EU Taxonomy compliant in the short-term.

Manufacture of plastics in primary form



Classification

Macro sector : Manufacturing

Code: C20.1.6 (Page 227-231)

- Already low carbon
- Transition activities
- “Enabling activities”
- Adaptation activities

Main features

- Absolute (e.g. gCO2/KWh, gCO2/pkm)
- In relative (gains in %, e.g. 30% in energy savings for renovation of buildings)
- Emissions covered :
 - scope 1 scope 2 scope 3
- Technology or practices criteria (automatic, e.g. solar PV, crop rotation)
- Label / standard / regulation

Metric & threshold

The plastics in primary form shall be manufactured by

- 1) mechanical recycling,
- 2) chemical recycling, AND/OR
- 3) wholly or partially derived from renewable feedstock. *(comply to at least one of the three criteria)*

For 2) and 3), threshold set at the carbon footprint of manufacture using fossil fuel feedstock. Third-party accounting in accordance to ISO 14067:2018 is required.

Additional criteria when feedstock is 1) **biomass**, to comply with EU Timber Regulation, EU Forest Law Enforcement and Trade, sustainable certification on palm oil, and to ensure traceability; or 2) **industrial bio-waste or municipal bio-waste**, to comply with waste regulation, and shall *not* compete with existing municipal bio-waste management infrastructure.

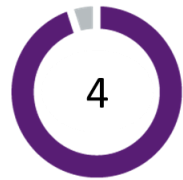
Natixis' GSH view

Stringency

Usability

Discrepancy with standards
GBP CBI

Do no significant harm & Minimum Social safeguards



- Air and water pollution
- Ecosystem damage due to construction or operation
- Hazard waste

Comments:

The Taxonomy sends a strong signal on plastic manufacture from recycled and renewable feedstock, in order to minimize the production of virgin plastics. Additional criteria on responsible and transparent sourcing of biomass and bio-waste also takes full consideration on the lifecycle impacts on forest, land use. Practical guidance on exclusion: 1) no biomass feedstock produced from new and greenfield oil palm tree plantation, 2) no bio-waste separated from mixed residual waste (encourage classified recycling), 3) do-not-compete with existing municipal bio-waste management facilities.



4 economic activities covered

- ✓ **Construction of new buildings**: development capex and equity / revenues of developers and construction companies
- ✓ **Renovation of existing buildings** : relative improvements (30% vs baseline) and comprehensive renovation capex and equity/revenues of renovation companies
- ✓ **Individual renovation measures, installation of renewable on-site, and professional, scientific and technical activities** : single technical interventions (capex & equity/revenues of installation companies), services functional to building performance improvement (capex + equities/revenues of companies offering the service)
- ✓ **Acquisition and ownership of buildings** : purchase of buildings, building ownership and improvement from an asset perspective (acquisition capex + revenues /equity of the owner)

Key principles

- ✓ **Transitional approach based on energy related metrics**
- ✓ Going forward : integrate GHG emissions metrics
- ✓ **Focus on operational phase**, while recommending the addition of metrics covering building materials' footprint, construction and end-of-life phases of the life cycle
- ✓ **Focus on “modelized” performances vs measured (via metering) considered strongly influenced by facility management.**
- ✓ **EU policy instruments chosen as proxies for thresholds & metrics (NZEB + EPC) considered as a proxy for the target level of ambition of a minimal benchmark of the top 15% of the local stock** as a representative of the best level of energy and resource efficiency. Minimum level of ambition will be progressively strengthened to reach net-zero carbon neutrality by 2050
- ✓ Do no Significant harm criteria : minimum safeguards across building life cycle (cf. EU & International standards)
- ✓ Exclusion : Buildings related to fossil fuels activities
- ✓ Further developments : **absolute thresholds for primary operational energy; operational GHG emissions; embodied GHG emissions (LCA based) + additional criteria covering operational management of buildings**
- ✓ **Call for update after the publication of a dedicated DG ENER study in H2 2019.**

Construction of new buildings



Classification

Macro sector : Construction

Code: F41, F43 (Page 366-371)

- Already low carbon
- Transition activities
- "Enabling activities"
- Adaptation activities

Main features

- Intensity (e.g. gCO2/KWh, gCO2/pkm)
- In relative (gains in %, e.g. 30% in energy savings for renovation of buildings)
- Emissions covered :
 - scope 1 scope 2 scope 3
- Technology or practices criteria (automatic, e.g. solar PV, crop rotation)
- Label / standard / regulation : Sustainable Forest Management (SFM, NZEB)

Metric & threshold

Meet (operational primary energy demand) national requirements for **Nearly zero-energy buildings (NZEB)** transposing the Energy performance of buildings directive (EPBD) in each Member State

AND

A level of **energy performance equivalent to the EPC rating of B (or above)**

Outside the EU : buildings certification or national regulation or requirements showing compliance with performance criteria will be eligible (provided full disclosure of assessment methodology) => to be approved by the Sustainable Finance platform through an accreditation process with burden of proof on the certification body
Going forward : development of absolute thresholds for energy and carbon performance (min top 15% of the local stock moving to carbon neutrality by 2050)

Natixis' GSH view



Stringency Usability



Very different assessment according to countries

Discrepancy with standards
GBP CBI



Depends on EU countries
GBP much looser

Do no significant harm & Minimum Social safeguards

- Eco-design (EC Level frameworks)
- Water consumption caps for buildings located in water scarce areas
- Exclusion of protected natural areas for new built
- Circular economy requirements : re-use or recycling of the non-hazardous construction and demolition waste (EU Construction & Demolition waste Management Protocol)
- Compliance of building materials with REACH Regulation
- Best effort on physical risks mitigation

Comments: Though revised since the V1, these metrics & thresholds differ from market practice. For the countries that have already transposed NZEB in local regulations in granular and practical way (i.e. France, Germany) the chosen metrics and thresholds are both practical and easy to reach (cf. in France, all buildings compliant with 2012 Building Codes would qualify). But quite some countries have much less straight forward and usable NZEB transpositions. In reality the rigor of actual EPC assessments vary drastically and have proved to be often poorly reliable data. Also EPC levels calculations vary from one EU country to the other challenging the universal thresholds of B. We applaud the suggested accreditation process of buildings' certification schemes, forcing an increased transparency on methodology. But until such accreditation, numerous Green bonds frameworks will not be Taxonomy compliant. Unclear whether these schemes will be allowed inside the EU.

Renovation of existing buildings



Classification

Macro sector : Construction

Code: F41, F43 (Page 372-376)

- Already low carbon
- Transition activities
- "Enabling activities"
- Adaptation activities

Main features

- Intensity (e.g. gCO₂/KWh, gCO₂/pkm)
- In relative (gains in %, e.g. 30% in energy savings for renovation of buildings)
- Emissions covered :
 - scope 1 scope 2 scope 3
- Technology or practices criteria (automatic, e.g. solar PV, crop rotation)
- Label / standard / regulation (EPBD, NZEB)

Metric & threshold

Eligibility when meeting the following criteria:
The renovation is compliant with energy performance standards set in the ad hoc regulations transposing Energy Performance of Buildings Directive (EPBD)

OR

The renovation achieves energy savings (CEN T350, expressed as kWh/m² per year) of at least 30% in comparison to the baseline performance of the building before the renovation (with external validation by an accredited auditor)

Buildings for the purpose of occupation by fossil fuel extraction, transporting transport of fossil fuels or manufacturing of fossil fuels activities are excluded. Accredited alternative schemes (certification or non EU national regulations) are eligible provided they meet the performance criteria

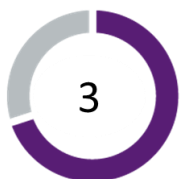
Natixis' GSH view

Stringency

Usability

Discrepancy with standards
GBP CBI

Do no significant harm & Minimum Social safeguards



EEMAP



- Circular economy requirements : re-use or recycling of the non-hazardous construction and demolition waste (EU Construction & Demolition waste Management Protocol)
- Identification, management and appropriate training re- substances of concern (eg. Asbestos)
- Best effort on physical risks mitigation
- Water consumption caps for buildings located in water scarce areas
- Exclusion of protected natural areas for new built

Comments:

We welcome the effort to contextualize criteria through the recourse to local regulations (EPBD transpositions) taking into consideration climate, building stock and market conditions. Though the granularity, usability and stringency of local regulations vary drastically. The 30% threshold is very similar to market practices (cf. CBI) and a quite usable threshold.

5

CLIMATE CHANGE ADAPTATION: SNAPSHOT OF CLIMATE HAZARDS' CLASSIFICATION AND ADAPTATIVE MEASURES



Due to the context-specific nature of adaptation, the TEG proposes a classification of climate-related hazards and a sensitivity matrix for specific activities.

The climate change adaptation approach proposed by the TEG

- Adaptation responds to physical risk that are **mostly location and context specific**
- Impossible to produce a stand-alone and exhaustive list of activities
- Instead, the TEG proposes a **set of guiding principles and screening criteria tested upon several activities** (e.g. Transmission lines, Sewage, Growing of non-perennial crops)

Activity-level adaptation is defined as : strengthening an asset or economic activity to withstand identified physical climate risks over its lifetime.

Adaptation OF an economic activity

A process aimed at ensuring that an economic activity can perform under a changing climate : e.g. water utility deploys early warning system to reduce risk of flood

Adaptation BY the economic activity

An economic activity that contributes to adaptation of other economic activities:
e.g. SME develops early warning system for flood risk

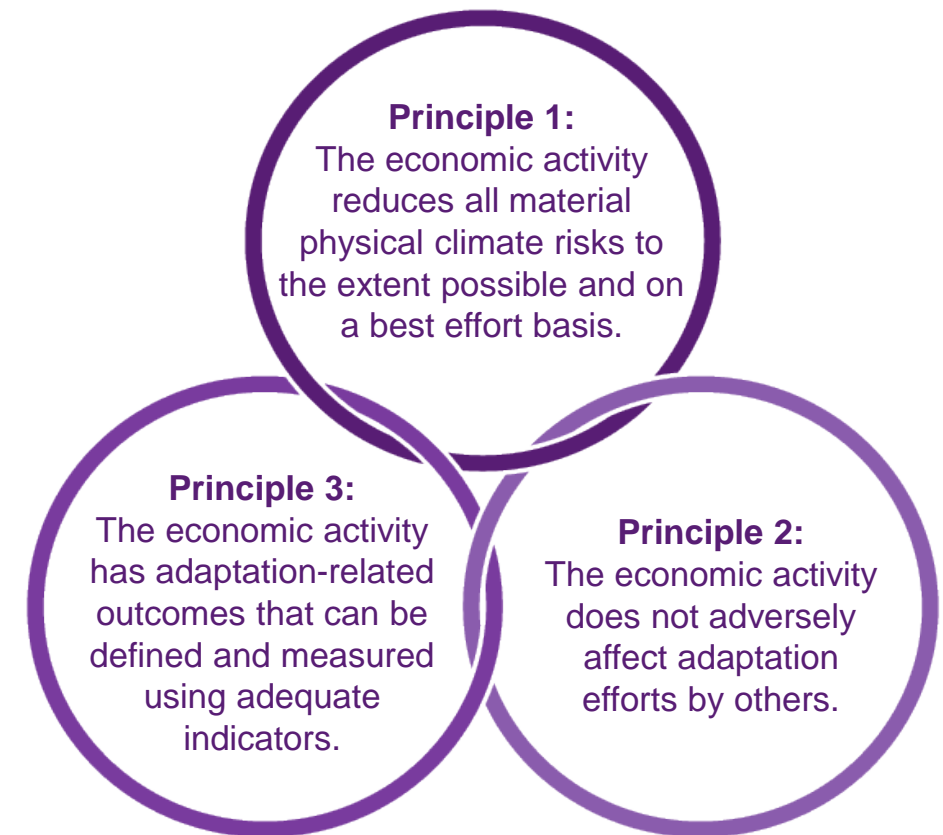
Comment: The approach is innovative but seems a bit theoretical. One wonders the usability of the guiding principles. *In situ* assessments might be neither scalable nor trustworthy for investors. The examples of adaptation measures and suggested KPIs are useful.



Classification of climate hazards and guiding principles from the TEG




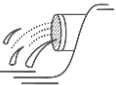

Changes in climate patterns and in the frequency/severity of climate-related events that are:				
	Temperature-related	Wind-related	Water-related	Solid mass-related
Chronic	Changing temperature (air, fresh water, marine water)	Changing wind patterns	Changing precipitation patterns and types (rain, hail, snow/ice)	Coastal erosion
	Heat stress		Precipitation and/or hydrological variability	Soil degradation
	Temperature variability		Ocean acidification	Soil erosion
	Permafrost thawing		Saline intrusion	Solifluction
			Sea level rise	
			Water stress	
Acute	Heat wave	Cyclone, hurricane, typhoon	Drought	Avalanche
	Cold wave/frost	Storm (including blizzards, dust and sand storms)	Heavy precipitation (rain, hail, snow/ice)	Landslide
	Wildfire	Tornado	Flood (coastal, fluvial, pluvial, ground water)	Subsidence
			Glacial lake outburst	

Investors should look for implementation of three principles to understand whether an activity makes a substantial contribution to climate change adaptation:



Source : TEG (June 2019) Using the taxonomy. Supplementary Report

Sample of adaptation measures for activities exposed to climate-related natural hazards

Activity	Specific hazards & impacts	Examples of adaptation measures	Suggested KPIs
 Growing of non-perennial crops	Temperature increase	R&D / use of drought-resistant crop varieties Vertical farming, hydroponics	% cropping area with less susceptible crops/varieties
	Changing precipitation patterns	Soil water retention: Use of cover crops, organic fertilizers, minimum tillage	% cropping area with enhanced soil water retention
 Transmission lines	Heat waves	Installing conductors with operating limits at higher temperature thresholds Increase system capacity by adding external coolers to transformers	System Average Interruption Frequency Index after adaptation compared to before adaptations
 Production of Electricity from Hydropower	Soil erosion	Adoption of sediment-resistant turbines	Reduction in annual damage caused by sediment (€)
 Sewerage	Flash flooding	Incorporate submersible transformers, switches, pumps	Reduced repair costs due to flood events
 Non-life insurance	Wind and solid-mass related hazards	Requiring minimum building standards, or adherence to build-back-better principles, differentiated by risk level, as a standard element of insurance contracts	% of insurance including such requirements

Source : TEG Technical Report (June 2019), selection from authors



BRIEFING ON THE GUIDELINES ON REPORTING CLIMATE-RELATED INFORMATION

The Guidelines on reporting climate-related information released by the EU Commission on June 18 integrate the recommendations of the Financial stability board's taskforce on climate-related financial disclosures (TCFD) and take account of the forthcoming taxonomy on sustainable activities that is under development.

Climate-related disclosure guideline

What & who?

On June 18, 2019, the EU Commission published **new guidelines on corporate climate-related information reporting** for large listed European companies.

It took into consideration the TEG's January Report on climate-related disclosure. It is a **supplement to the general non-binding guidelines on non-financial reporting** adopted by the Commission in 2017.

Is it compulsory?

The guidelines are non-binding but a guidance to around 6,000 EU-listed companies, banks and insurance companies that have to disclose non-financial information under the [Non-Financial Reporting Directive](#) (NFRD).

When?

Companies should be able to use them for reports published in 2020, covering financial year 2019.



Importantly, the EU Commission recommends to companies to disclose the **proportion of their turnover and/or capital expenditure and/or operational expenditure that are taxonomy compliant.**

20.6.2019 Official Journal of the European Union C 209/1

II
(Information)

INFORMATION FROM EUROPEAN UNION INSTITUTIONS, BODIES, OFFICES
AND AGENCIES

EUROPEAN COMMISSION

COMMUNICATION FROM THE COMMISSION
Guidelines on non-financial reporting: Supplement on reporting climate-related information
(2019/C 209/01)

Important notice

This communication has been prepared pursuant to Article 2 of Directive 2014/93/EU of the European Parliament and of the Council (*) in order to assist companies concerned to disclose non-financial information in a relevant, useful, consistent and more comparable manner. It is a supplement to the Guidelines on Non-Financial Reporting adopted by the Commission in 2017 (C(2017) 4234 final). This communication provides non-binding guidelines, and does not create new legal obligations. To the extent that this communication may interpret Directive 2014/93/EU, the Commission's position is without prejudice to any interpretation of this Directive that may be issued by the Court of Justice of the European Union. Companies using these guidelines may also rely on international, EU-based or national frameworks. This communication does not constitute a technical standard, and neither preparers of non-financial statements nor any party, whether acting on behalf of a preparer or otherwise, may claim that non-financial statements are in conformity with this document.

Contents

	Page
1. Introduction	2
1.1. Why provide new guidelines on climate-related disclosures?	2
1.2. Benefits for reporting companies	3
2. How to use these guidelines	3
2.1. General considerations	3
2.2. Materiality	4
2.3. Climate-related risks, dependencies, and opportunities	5
2.4. Structure of the proposed disclosures	8
2.5. Consistency with recognised reporting frameworks and standards	8
3. Recommended disclosures and further guidance	8
3.1. Business Model	8
3.2. Policies and Due Diligence Processes	9
3.3. Outcomes	10
3.4. Principal Risks and their Management	11
3.5. Key Performance Indicators	12
Annex I: Further guidance for banks and insurance companies	21
Annex II: Mapping of Non-Financial Reporting Directive Requirements and TCFD Recommended Disclosures	29

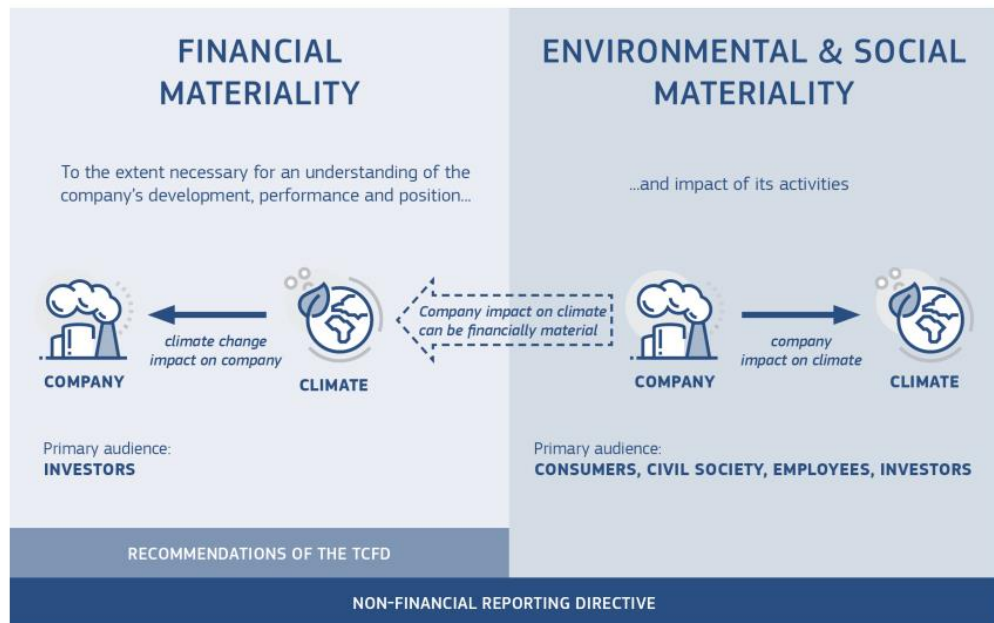
(*) OJ L 330, 15.11.2014, p. 1.

Text of the communication -
Guidelines on reporting climate-
related information. Available [here](#)



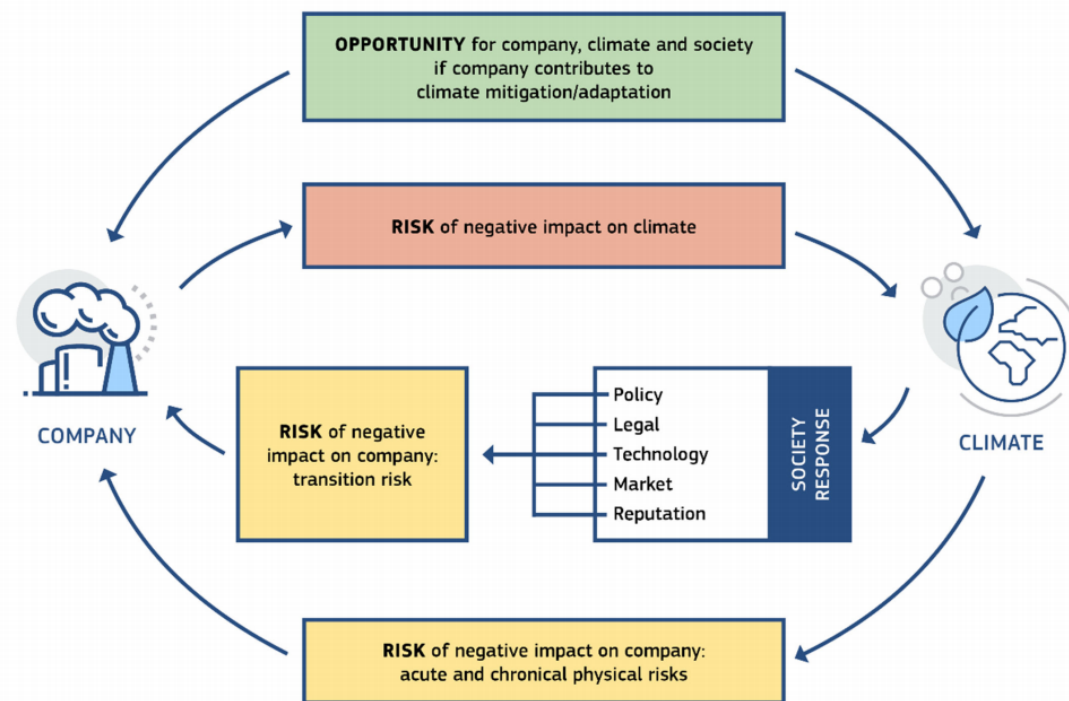
The materiality approach of the EU commission

1. The double materiality perspective of the NFRD in the context of reporting climate-related information



* Financial materiality is used here in the broad sense of affecting the value of the company, not just in the sense of affecting financial measures recognised in the financial statements.

2. Overview of climate-related risks and opportunities



When assessing the materiality of climate-related information companies should consider:

- a **longer-term time horizon** than is traditionally the case for financial information.
- their **whole value chain**, both upstream in the supply-chain and downstream.

Key takeaways of the Guidelines on reporting climate-related information



Guidelines' Content

Key concepts in relation to reporting climate information under the Non-Financial Reporting Directive, including:

- Materiality
- Climate-related risks
- Opportunities
- Natural capital dependencies

- An annex with further guidance for banks and insurance companies
- An annex explaining how the reporting requirements of the NFRD can be combined with the recommendations of the TCFD



Disclosed information should be:

1. Material
2. Fair, balanced and understandable
3. Comprehensive but concise
4. Strategic and forward looking stakeholder-oriented
5. Consistent and coherent

It is not the intention of these guidelines to encourage stand-alone climate reporting.

Main pillars of the climate-related disclosure

	Elements to describe according to the Guidelines
Business model	<ul style="list-style-type: none"> • Any change in the company's business model to address climate-related business risks and opportunities • The impact of climate related risks on the company's business model • The company's dependencies on natural capitals, such as water, land, ecosystems or biodiversity that are at risk because of climate change • How the company has selected scenarios • How the company's activities contribute to climate change via GHG emissions, including from deforestation, forest degradation or land-use change
Policies & due diligence	<ul style="list-style-type: none"> • Any company policies related to climate, including any climate change mitigation or adaptation policy • Any climate-related targets the company has set as part of its policies, especially any GHG emissions targets, and how company targets relate to national and international targets and to the Paris Agreement in particular • The board's oversight of climate-related risks and opportunities • The company's engagement with its value chain on climate-related issues, how it engages with upstream and downstream partners to promote climate mitigation and/or adaptation • How climate-related issues are integrated into the company's operational decision-making processes. • Any employee policies that are related to the climate, for example investments in skills necessary for the transition to low-carbon technologies, or measures to ensure employees can perform their tasks safely in a changing climate • Whether and how the company's remuneration policy takes account of climate-related performance, including performance against targets set. • Any energy-related targets the company has set as part of its policies

Main pillars of the climate-related disclosure

	Elements to describe according to the Guidelines
<p>Outcome of policies</p>	<ul style="list-style-type: none"> • The outcomes of the company’s policy on climate change, including the performance of the company against the indicators used and targets set to manage climate-related risks and opportunities. • The development of GHG emissions against the targets set and the related risks over time • How the performance of the company with regard to climate influences its financial performance, where possible with reference to financial KPIs
<p>Principal risks and risk management</p>	<ul style="list-style-type: none"> • Risks of the company having a negative impact on the climate and risks of climate change having a negative impact on the company (transition and physical risks), and whether and how the two are linked • The company’s processes for identifying and assessing climate-related risks over the short, medium, and long term and disclose how the company defines short, medium, and long term • The principal climate-related risks the company has identified over the short, medium, and long term throughout the value chain, and any assumptions that have been made when identifying these risks • Processes for managing climate-related risk • How processes for identifying, assessing, and managing climate-related risks are integrated into the company’s overall risk management • Disclose the financial impacts of extreme weather events

Further guidance on Principal Risks and Their Management

THRESHOLDS APPLIED AND INDICATE WHICH RISKS ACROSS THE VALUE CHAIN ARE CONSIDERED MOST SIGNIFICANT

DETAILED BREAKDOWN OF CLIMATE-RELATED RISKS BY BUSINESS ACTIVITY AND GEOGRAPHICAL LOCATION

DEFINITIONS OF RISK TERMINOLOGY USED OR REFERENCES TO EXISTING RISK CLASSIFICATION FRAMEWORKS

HOW SCENARIOS AND/OR INTERNAL CARBON PRICING ARE USED FOR RISK MANAGEMENT ACTIONS

RISK MAPPING THAT INCLUDES CLIMATE-RELATED ISSUES



IDENTIFY THE LOCATIONS THAT ARE CRITICAL TO VALUE CHAINS, INCLUDING OPERATIONS, SUPPLIERS AND MARKETS

PROCESSES FOR PRIORITISING CLIMATE-RELATED RISKS

TRANSITION RISKS (POLICY, LEGAL, TECHNOLOGICAL, MARKET & REPUTATIONAL RISKS)

DAYS OF BUSINESS INTERRUPTIONS AND ASSOCIATED COSTS, COST OF REPAIRS, FIXED-ASSET IMPAIRMENT, VALUE CHAIN DISRUPTIONS AND LOST REVENUES

SENSITIVENESS TO VARIABILITY IN TEMPERATURE AND PRECIPITATION

PHYSICAL RISKS (ACUTE AND CHRONIC RISKS)

LINKAGES BETWEEN PRINCIPAL CLIMATE-RELATED RISKS AND FINANCIAL KPIS

FREQUENCY OF REVIEWS AND ANALYSES WITH REGARD TO RISK IDENTIFICATION AND ASSESSMENT

TRIGGERS USED TO ESCALATE ISSUES TO MANAGEMENT ATTENTION

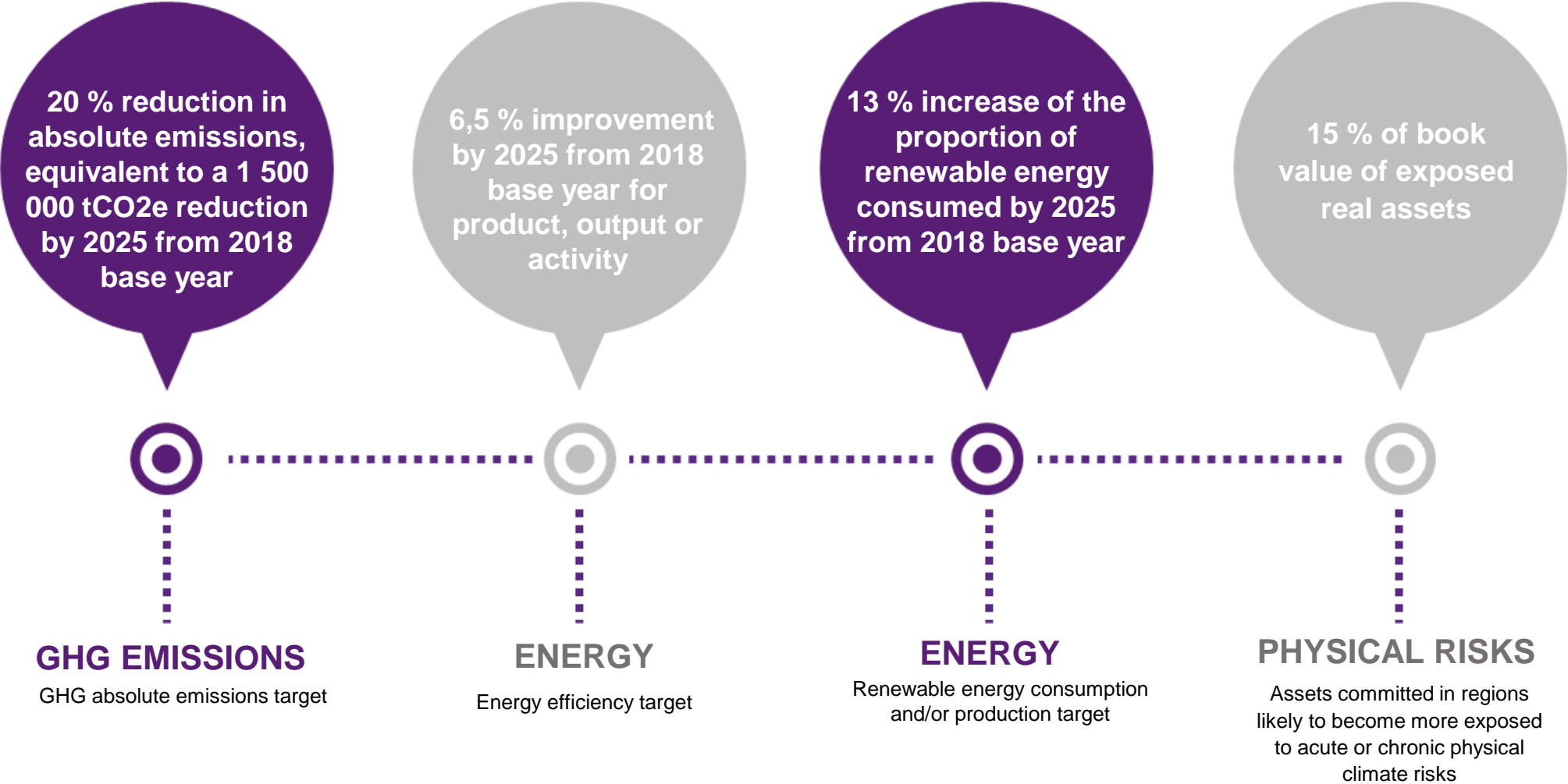
HOW THE COMPANY SETS AND APPLIES LIMITS TO CLIMATE-RELATED RISKS

Main pillars of the climate-related disclosure

	Elements to describe according to the Guidelines
Key Performance Indicators	<p>GHG emissions: Calculate GHG emissions according to the ISO 14064-1:2018 standard, scope 1,2 & 3 and absolute. Indicate the third-party verification/assurance status that applies to their reported scope 1, scope 2 and scope 3 GHG emissions.</p> <p>Energy: Disclose the total energy consumption & targets and/or production from renewable and non-renewable sources (MWh) Energy efficiency target Percentage</p> <p>Physical risks: Assets committed in regions likely to become more exposed to acute or chronic physical climate risks</p> <p>Products & services: Share of turnover that is EU Taxonomy Compliant</p>
	<p>Green Finance: Climate-related Green Debt Ratio</p>
	<p>Lending and Investment Activities: Credit risk exposures and volumes of collateral by geography/country of location of the activity or collateral</p>
	<p>Insurance: Percentage of products incorporating climate-related risks into the underwriting process for individual contracts</p>
	<p>Asset management: Breakdown of assets under management by business sector across asset classes</p>

Sample of KPIs proposed by the European Commission

Examples

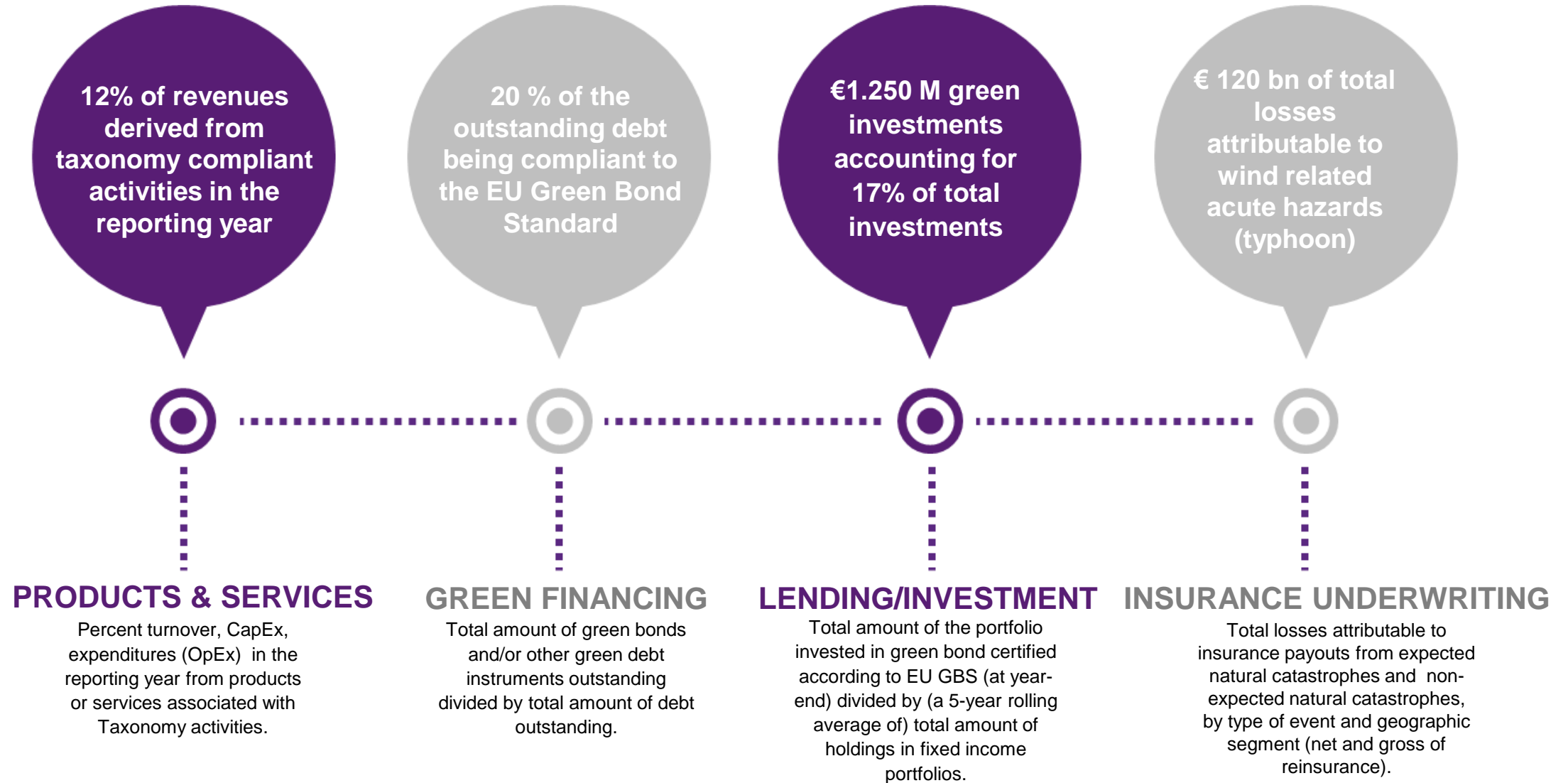


Source: Authors (Natixis GSH) and European Commission's guidelines

Sample of KPIs proposed by the European Commission

Focus on banks and insurance companies

Examples



DISCLAIMER FOR MARKETING COMMUNICATION

Reference prices are based on closing prices.

The information contained in this publication and any attachment thereto is exclusively intended for a client base consisting of professionals and qualified investors. This document and any attachment thereto are strictly confidential and cannot be divulged to a third party without the prior written consent of Natixis. If you are not the intended recipient of this document and/or the attachments, please delete them and immediately notify the sender. Distribution, possession or delivery of this document in, to or from certain jurisdictions may be restricted or prohibited by law. Recipients of this document are required to inform themselves of and comply with all such restrictions or prohibitions. Neither Natixis, nor any of its affiliates, directors, employees, agents or advisers or any other person accepts any liability to any person in relation to the distribution, possession or delivery of this document in, to or from any jurisdiction.

This document is considered as marketing communication within the meaning of the AMF General Regulation. It has not been developed in accordance with legal requirements designed to promote the independence of investment research and its author(s) is/are not subject to any prohibition on dealing in the relevant financial instrument ahead of the dissemination of the marketing communication. The investments mentioned in this documentation may not be suitable for all types of investors.

This document and all attachments are communicated to each recipient for information purposes only and do not constitute a personalized investment recommendation. They are intended for general distribution and the products or services described herein do not take into account any specific investment objective, financial situation or particular need of any recipient. This document and any attachment thereto shall not be construed as an offer nor a solicitation for any purchase, sale or subscription. Under no circumstances should this document be considered as an official confirmation of a transaction to any person or entity and no undertaking is given that the transaction will be entered into under the terms and conditions set out herein or under any other terms and conditions. This document and any attachment thereto are based on public information and shall not be used nor considered as an undertaking from Natixis. All undertakings require the formal approval of Natixis according to its prevailing internal procedures.

This document and any attachment thereto are based on public information and shall not be used nor considered as an undertaking from Natixis. All undertakings require the formal approval of Natixis according to its prevailing internal procedures. Under no circumstances should this document be considered as an official confirmation of a transaction to any person or entity and no undertaking is given that the transaction will be entered into under the terms and conditions set out herein or under any other terms and conditions.

The information contained in this document may include results of analyses from a quantitative model, which represent potential future events that may or may not be realized, and is not a complete analysis of every material fact representing any product. Information may be changed or may be withdrawn by Natixis at any time without notice. More generally, no responsibility is accepted by Natixis, nor any of its holding companies, subsidiaries, associated undertakings or controlling persons, nor any of their respective directors, officers, partners, employees, agents, representatives or advisers as to or in relation to the characteristics of this information. The statements, assumptions and forecasts contained in this documentation and any attachment thereto reflect the judgment of its author, unless otherwise specified, and do not reflect the judgment of any other person or of Natixis.

Natixis shall not be liable for any financial loss or any decision taken on the basis of the information disclosed in this presentation and Natixis does not provide any advice, including in case of investment services. In any event, you should request for any internal and/or external advice that you consider necessary or desirable to obtain, including from any financial, legal, tax or accounting adviser, or any other specialist, in order to verify in particular that the transaction described in this material complies with your objectives and constraints and to obtain an independent valuation of the transaction, its risk factors and rewards.

It should be noted that, in the context of its activities, Natixis may have positions in financial instruments and in the issuer concerned by the recommendations or opinions provided in this document or any attachment thereto. Natixis can be remunerated for underwriting services, investment services, advice services and any other investment service provision or banking activity and any other service related to financial instruments of the company or the companies mentioned in this document. In this case, references made to conflicts of interests that Natixis and its affiliates may experience, with respect to the issuer(s) mentioned in this document are available on the website of the Research by clicking on the following link:
<https://www.research.natixis.com/GlobalResearchWeb/main/globalresearch/DisclaimersSpecifiques>

Natixis is supervised by the European Central bank (ECB).
Natixis is authorized in France by the *Autorité de Contrôle Prudentiel et de Régulation* (ACPR) as a Bank - Investment Services Provider and subject to its supervision.
Natixis is regulated by the *Autorité des Marchés Financiers* in respect of its investment services activities.
Natixis is authorized by the ACPR in France and regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority in the United Kingdom. Details on the extent of regulation by the FCA and the Prudential Regulation Authority are available from Natixis' branch in London upon request.
In Germany, NATIXIS is authorized by the ACPR as a bank – investment services provider and is subject to its supervision. NATIXIS Zweigniederlassung Deutschland is subject to a limited form of regulation by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) with regards to the conduct of its business in Germany under the right of establishment there. The transfer / distribution of this document in Germany is performed by / under the responsibility of NATIXIS Zweigniederlassung Deutschland.
Natixis is authorized by the ACPR and regulated by Bank of Spain and the CNMV (*Comisión Nacional del Mercado de Valores*) for the conduct of its business under the right of establishment in Spain.
Natixis is authorized by the ACPR and regulated by Bank of Italy and the CONSOB (*Commissione Nazionale per le Società e la Borsa*) for the conduct of its business under the right of establishment in Italy.
Natixis is authorized by the ACPR and regulated by the Dubai Financial Services Authority (DFSA) for the conduct of its business in and from the Dubai International Financial Centre (DIFC). The document is being made available to the recipient with the understanding that it meets the DFSA definition of a Professional Client; the recipient is otherwise required to inform Natixis if this is not the case and return the document. The recipient also acknowledges and understands that neither the document nor its contents have been approved, licensed by or registered with any regulatory body or governmental agency in the GCC or Lebanon.
All of the views expressed in this document accurately reflect the author's personal views regarding any and all of the subject securities or issuers. No part of author compensation was, is or will be, directly or indirectly related to the specific recommendations or views expressed in this document.

I (WE), AUTHOR(S), WHO WROTE THIS REPORT HEREBY CERTIFY THAT THE VIEWS EXPRESSED IN THIS REPORT ACCURATELY REFLECT OUR(MY) PERSONAL VIEWS ABOUT THE SUBJECT COMPANY OR COMPANIES AND ITS OR THEIR SECURITIES, AND THAT NO PART OF OUR COMPENSATION WAS, IS OR WILL BE, DIRECTLY OR INDIRECTLY, RELATED TO THE SPECIFIC RECOMMENDATIONS OR VIEWS EXPRESSED IN THIS REPORT.

The personal views of authors and analysts may differ from one another. Natixis, its subsidiaries and affiliates may have issued or may issue reports that are inconsistent with, and/or reach different conclusions from, the information presented herein.
Natixis, a foreign bank and broker-dealer, makes this document available solely for distribution in the United States to major U.S. institutional investors as defined in Rule 15a-6 under the U.S. securities Exchange Act of 1934. This document shall not be distributed to any other persons in the United States. All major U.S. institutional investors receiving this document shall not distribute the original nor a copy thereof to any other person in the United States. Natixis Securities Americas LLC, a U.S. registered broker-dealer and member of FINRA, is a subsidiary of Natixis. Natixis Securities Americas LLC did not participate in the preparation of this document and as such assumes no responsibility for its content. This document has been prepared and reviewed by employees by Natixis, who are not associated persons of Natixis Securities Americas LLC and are not registered or qualified as research analysts with FINRA, and are not subject to the rules of the FINRA. In order to receive any additional information about or to effect a transaction in any security or financial instrument mentioned herein, please contact your usual registered representative at Natixis Securities Americas LLC, by email or by mail at 1251 Avenue of the Americas, New York, NY 10020.

The stocks mentioned might be subject to specific disclaimers. Please click on the following link to consult them:
<https://www.research.natixis.com/GlobalResearchWeb/main/globalresearch/DisclaimersSpecifiques>