23 July 2020
Covered Bonds

Sustainable covered bonds

Looking beyond the taxonomy regulation

Contents

Earlier this month the European taxonomy regulation came into force. The taxonomy regulation is probably one of the most essential pieces of recent regulation impacting the green bond market. Whether the taxonomy's initial environmental focus will prove a differentiating performance factor for green over social covered bonds remains to be seen. There are no such signs yet.

The regulatory developments reflecting Europe's climate goals have clearly accelerated in the past two years after the European Commission published its ambitious action plan on financing sustainable growth in March 2018. The **European green deal** presented by the European Commission in December 2019 underscores the EU's full awareness of the climate and environmental challenges still at hand.

The increase in the EU's climate ambitions for 2030 and 2050 is just one of the important driving forces of the green deal roadmap, invigorated by this year's climate law proposals to morph climate neutrality by 2050 into a legally binding target. To meet the climate-neutrality objective, EU greenhouse gas emission should by 2030 ideally be 50% to 55% lower than in 1990. Indeed, the private sector remains key to financing the required transition. Hence, the promotion of sustainable investments by private sector actors, including via green bonds, will remain high on Europe's political agenda.

The European taxonomy regulation that came into force on 12 July 2020, is probably one of the most influential pieces of regulation of the past few years impacting the green bond market. This unified classification system for sustainable activities is the backbone to the establishment of the EU green bond standard. It is probably also one of the most essential foundations for the European Commission **renewed sustainable finance strategy** to be presented in 3Q20 and progressing from the 2018 action plan.

The taxonomy regulation is at first solely focused on economic activities considered environmentally sustainable but will ultimately be expanded with other sustainable objectives (including social), albeit not before the end of 2021. Hence, for the sustainable (covered) bond market the taxonomy regulation will at first primarily be of relevance to the use of proceeds allocated to green assets, not so much social assets. Over the past several years we have seen the sustainable covered bond market gradually become a little bit greener. A year ago, green issuance comprised 54% of the sustainable covered bond market. This percentage has grown to 63% by the end of 1H20. As such the share of the portfolios of assets (re)financed by sustainable covered bonds that would be in scope of the taxonomy regulation has increased.

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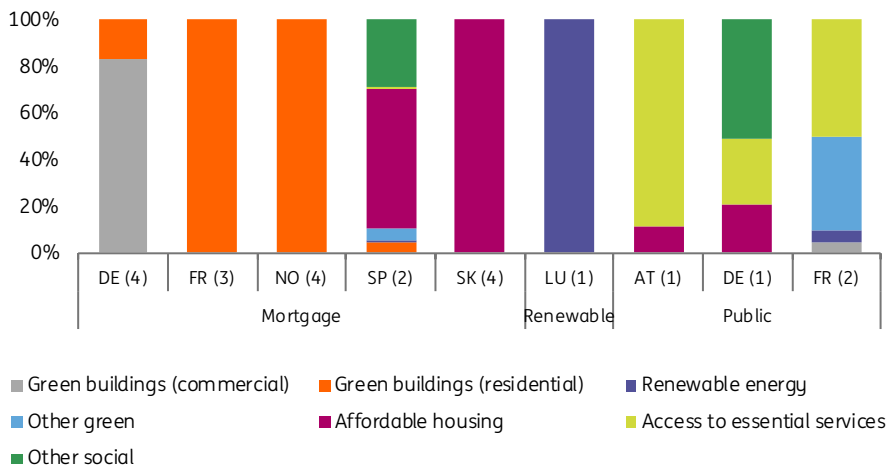
The range of green proceed allocations has expanded

Besides, we have also seen the range of eligible green assets expand. While the first green covered bonds were issued in mortgage covered bond format to finance energy efficient building loans, the environmental proceed allocations have become far more diverse. Last year featured the first **green public sector covered bond** with proceed allocations to a mixture of assets, including in the sustainable water and sanitation, waste management, energy efficiency, renewable energy, green buildings and territorial mobility/soft urban transport segments. The public sector covered bond segment also saw the first **blue social bond** being issued last year, financing public supply projects in the field of water and waste management, and as such building a bridge between social issuance and an environmental use of proceeds.

The sustainable covered bond market had another important primer in 1H20, with the issuance of the first **renewable energy covered bond** under the amended Luxembourg covered bond law. The bond extends the green covered bond issuance beyond the traditional mortgage and public sector covered bond segments and remains up until today the one single example of sustainable covered bond issuance under a dedicated legal framework for the issuance of green covered bonds.

Fig 1 Use of proceeds across sustainable EUR benchmark covered bonds



* Average shares of the sustainable portfolio assets in covered bond cover pools by end 1H20, unless only reported on an aggregate sustainable portfolio basis. The number of programmes per country are in brackets. Proceed allocation assumptions for French green public sector covered bonds are indicative
Source: Issuer reports, ING

Technical screening criteria must yet be established

Meanwhile, the European Commission has yet to establish the technical screening criteria ensuring taxonomy alignment. A separate delegated act should be adopted before the end of this year on the technical screening criteria for the climate change mitigation and adaptation objectives. The Technical Expert Group (TEG) published its final technical screening criteria update in March this year, already taking the step-up in the EU's climate ambitions for 2030 and 2050 into consideration.

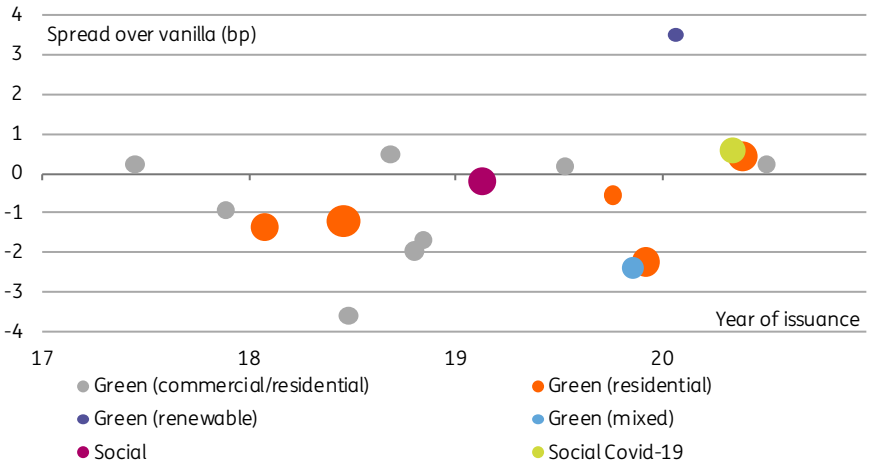
For the climate mitigation criteria, the TEG identified eight sectors based on their emissions footprint. These include: (1) forestry, (2) agriculture, (3) manufacturing, (4) electricity, gas, steam and air-conditioning supply, (5) water, sewerage, waste and remediation, (6) transportation and storage, (7) information and communication, and (8) buildings. Despite the expansion of the green covered bond market beyond the traditional green building assets, the technical screening criteria for construction and real estate activities remain probably of most importance to the green covered bonds.

Under the TEG's proposals, the primary energy demand (PED) for newly constructed buildings has to be 20% lower than the primary energy demand resulting from the 'nearly zero-energy building' (NZEB) requirements, mandatory for all new buildings in the EU per 2021. A best-in-class approach (top 15% of the local existing stock in terms of

energy demand) is still applied for the acquisition of buildings built before 31 December 2020 and certification schemes such as EPCs can still be used as evidence for eligibility. The new criteria have no implications for the existing green bond frameworks or green covered bonds outstanding. However, as the 2021 NZEB and EPC threshold for eligible loans are yet unknown, it will at this stage be difficult for issuers to bring the green bond framework updates fully in line with the TEG's final technical screening proposals.

Whether the taxonomy's initial focus on environmental activities will offer a stronger support for green (covered) bonds over social bond alternatives is hard to say. On the one hand, investor demand may indeed be supported by the clarity offered by bonds marketed as taxonomy aligned, and that finance activities that are indeed environmentally sustainable. Besides, the establishment of low carbon benchmarks and positive-carbon impact benchmarks, to the extent applicable to bond investments, will have a green focus by addressing carbon emission reductions. On the other hand, bonds marketed as taxonomy aligned may also require additional efforts from investors in terms of verifying that all the taxonomy criteria, including the 'do no significant harm' and social safeguards are indeed met. Issuers may face the same challenges though in terms of establishing a portfolio of assets that are taxonomy aligned beyond any doubts, which could also dampen the issuance of green bonds marketed as taxonomy aligned. The 20% below NZEB goal as of 2021 may also constraint the future growth of the eligible green building portfolios. Social bonds do not face these challenges yet.

Fig 2 Not all sustainable covered bonds trade through vanilla covered bonds



* The size of the bullet represents the amount outstanding in the sustainable covered bond
Source: ING

No convincing prove of green performing better than social

Figure 2 confirms that the large majority of the sustainable covered bonds are quoted through their vanilla alternatives, with the exception of the more recently issued bonds. The chart only includes a selection of sustainable covered bonds with two vanilla adjacents on the curve. However, the type of proceed allocations or the size of the covered bonds at this stage do not seem to play a decisive role. The social covered bonds in the chart appear to trade less through vanilla adjacents than some of their green covered bond comparables. However, there are also various green covered bonds that do not or hardly trade through traditional adjacents. The most noteworthy outlier, is probably the spread of the Luxembourg renewable energy covered bond versus its public sector adjacents. There may be different explanations for the spread concession of the renewable energy covered bond, including its sub-benchmark size or the less traditional nature of renewable energy assets as cover assets. However, the wider spread does suggest that a dedicated cover pool of eligible green assets may not necessarily be a differentiating performance support in comparison to green covered bonds that rank pari passu with traditional covered bonds issued under the same programme in their claim on the cover pool, including the green cover assets financed.

The European green deal

Moving on from the action plan on sustainable finance

Taxonomy alignment is one of the requirements of the EU green bond standard

The regulatory developments reflecting Europe's climate goals have clearly accelerated in the past few years after the European Commission published its ambitious **action plan on financing sustainable growth** in March 2018. This action plan identified ten individual actions with the purpose of, among others, redirecting capital flows to sustainable investments, and as such already by itself led to a flood of new regulatory proposals. One of the most important regulatory outcomes of the action plan on sustainable finance is the **taxonomy regulation** that came into force on 12 July 2020. The taxonomy regulation provides a unified classification system for sustainable activities and is also the backbone to the establishment of the EU green bond standard (GBS). After all, the eligible green projects to be financed by an EU green bond should contribute to the environmental objectives identified by the taxonomy. (Please see Appendix 1 and Appendix 3 for further details on the taxonomy and GBS).

On 11 December 2019, the European Commission presented the **European green deal**, which resets the Commission's commitment to tackle climate- and environmental-related challenges. The European green deal is seen as an integral part of the Commission's strategy to implement the United Nation's 2030 agenda and the sustainable development goals (SDGs). The initial roadmap of the key policies and measures to achieve the European green deal focuses on the following elements:

- Increasing the EU's climate ambition for 2030 and 2050;
- Supplying clean, affordable and secure energy;
- Mobilising industry for a clean and circular economy;
- Building and renovating in an energy and resource efficient way;
- Accelerating the shift to sustainable and smart mobility;
- From farm to fork: a fair healthy and environmentally friendly food system;
- Preserving and restoring ecosystems and biodiversity;
- A zero pollution ambition for a toxic free environment.

As part of the EU's increased climate ambitions for 2030 and 2050, the European Commission published its proposals for a **European climate law** on 4 March 2020. The European climate law sets an EU-wide legal target for climate neutrality by 2050, binding to all EU institutions and national governments. To ensure consistency with the climate-neutrality objective, the climate law proposals reiterate the European green deal's commitment to explore the options to increase the EU's greenhouse gas emission reduction target for 2030 to a new target of at least 50% and towards 55% emissions reduction compared to the 1990 levels. This new ambition was also taken into consideration by the TEG in establishing the updated thresholds for the taxonomy technical screening criteria published in March 2020.

EC to present a renewed sustainable finance strategy

The European Commission estimated that to achieve the 2030 climate and energy targets set by the green deal an additional amount of €260bn of annual investments is required. As the private sector is considered key to financing the green transition, the European Commission will present **a renewed sustainable finance strategy** in 3Q20, which will build on the ten actions defined in the March 2018 action plan on financing sustainable growth. The renewed sustainable finance strategy will focus on:

- A strengthening of the foundations of sustainable investments by creating an enabling framework, with appropriate tools and structures;
- Providing increased opportunities for investors and companies by making it easier for them to identify sustainable investments and ensuring that they are credible;

- Managing and integrating climate and environmental risks into financial institutions and the financial system as a whole.

This will keep familiar topics such as the integration of sustainability into the corporate governance framework, the increased focus on long-term developments and sustainability aspects and the climate and environmental disclosures by companies and financial institutions high on the agenda. Also, the EU eco label scheme for retail investment products and the EU green bond standard will be part of the renewed sustainable finance strategy discussion. The same holds for the information to be provided to green bond investors in the prospectus or the further assessment of the suitability of existing capital requirements for green assets.

On 8 April 2020, the European Commission released a consultation on the renewed sustainable finance strategy to collect the views and opinions of interested parties for the purpose of the development of the renewed strategy. The questions were mostly organised along the lines of the three main actions identified for the renewed sustainable finance strategy, involving a broad range of topics which indeed were also addressed in more or less detail by the March 2018 action plan on sustainable finance. The consultation did not specifically address the possibility of a legislative initiative on the EU green bond standard as suggested in the TEG's usability guide on the EU green bond standard. However, the consultation did announce a forthcoming separate consultation on a Commission initiative for an EU green bond standard.

As the taxonomy regulation is probably one of the most essential foundations for any further progress in this regard, we provide a brief overview of the taxonomy regulation in the next section. Here we will also touch upon on the important final groundwork delivered by Technical Expert Group (TEG) in March this year for the establishment of the technical screening criteria for the climate mitigation and adaptation objectives.

The EU taxonomy

On 12 July 2020, the EU taxonomy regulation entered into force[1]. The taxonomy regulation provides for a unified classification system for sustainable activities, establishing the minimum requirements for marketing financial products or bonds as environmentally sustainable investments. One of the purposes of the taxonomy was to address concerns regarding greenwashing, where products are marketed as environmentally friendly, without meeting the basic environmental standards.

The taxonomy identifies the following **six sustainability objectives**:

At first the taxonomy will focus on climate change objectives

1. Climate change mitigation;
2. Climate change adaptation;
3. Sustainable use and protection of water and marine resources;
4. Transition to a circular economy, waste prevention and recycling;
5. Pollution prevention and control;
6. Protection and restoration of biodiversity and ecosystems.

An **economic activity** is considered **environmentally sustainable** and thus taxonomy eligible if it meets the following **criteria**:

- The economic activity **contributes** substantially **to one of the environmental objectives** identified;
- The economic activity **does not significantly harm** (DNSH) any of these environmental objectives;
- The economic activity is carried out in compliance with the **minimum safeguards**;
- The economic activity complies with the **technical screening criteria**.

Technical screening criteria

The European Commission will establish the technical screening criteria for the climate mitigation and climate adaptation objectives in a separate delegated act, to be adopted before the end of 2020. The criteria should become applicable per 1 January 2022. A delegated act for the other four objectives is intended to be adopted by the end of 2021, ensuring the application of these technical screening criteria per 1 January 2023. A **Platform on Sustainable Finance** will be established to advise the Commission among other things on the technical screening criteria, as well as on the possible need to update the criteria.

The taxonomy report of the TEG establishes the climate change technical screening criteria

In March 2020 the European Commission's Technical Expert Group (TEG) published its updated technical report on the **taxonomy** along its usability guide on the EU g**reen bond standard**. As the taxonomy will develop gradually, the technical report focused at first on establishing technical screening criteria for economic activities that make a substantial contribution to 1. **climate change mitigation** and 2. **climate change adaptation**, while avoiding significant harm to the other environmental objectives (including 3-6). The TEG's (extended) mandate will end in September 2020. Hence, since the publication of its final taxonomy report the TEG merely operates in an advisory capacity until the Platform on Sustainable Finance is fully operational. The platform will draft the further technical screening criteria proposals as advise to the European Commission.

The TEG identified **eight key sectors for climate change mitigation** based on their emissions footprint (see Appendix 2 for more details):

- Forestry;
- Agriculture;

[1] The EU taxonomy regulation was published in the official journal of the European Union 22 June 2020 (regulation 2020/852 on the establishment of a framework to facilitate sustainable investment), entering into force 20 days after this publication date.

- Manufacturing;
- Electricity, gas, steam and air-conditioning supply;
- Water, sewerage, waste and remediation;
- Transportation and storage;
- Information and communication;
- **Buildings**.

The technical screening criteria for buildings remain most relevant to green covered bonds

Despite the expansion of the green covered bond market beyond the traditional green building assets, the technical screening criteria for construction and real estate activities remain probably of most importance to the green covered bonds. The building sector comprises four sub-sectors: (a) the construction of **new buildings**, (b) **building renovation** (where expenditures must be at least 50% related to energy efficiency measures in order to be considered as eligible in their entirety), (c) individual **measures and professional services**, increasing energy efficiency and supporting energy improvements, and (d) the **acquisition and ownership** of buildings.

The technical screening criteria established for each sub-sector are based upon:

1. **Principles**: the underlying rationale for how the activity will result in a substantial contribution and/or avoidance of significant harm to the environmental objective;
2. **Metrics**: The methods by which the environmental performance of the economic activity will be measured, including defining the boundary for this measurement;
3. **Thresholds**: Qualitative or quantitative conditions which must be met to enable the performance of the activity in a way that is considered environmentally sustainable.

Detailing the criteria for construction and real estate activities

Figure 3 gives an overview of the technical screening or mitigation criteria for construction and real estate activities:

The energy performance of new buildings will always have to be 20% below the PED of NZEB

The construction of buildings should ensure a net primary energy demand (PED) that is at least 20% lower than the primary energy demand resulting from the 'nearly zero-energy building' (NZEB), as defined in national regulation transposing the EPBD. The NZEB requirements are mandatory for all new buildings in the EU from 2021 onwards. The TEG argues that, to avoid all new buildings being eligible and to ensure finance is directed to sustainable solutions, better performance levels should be set than the NZEB requirements. The reductions in PED can be realised via for example (a) a more efficient design, (b) on- and off-site renewable energy generation, or (c) a combination of both. The use of a percentage improvement furthermore ensures that for countries that already have a comparatively low PED, the 20% improvement is lower in absolute amounts. The criteria will be reviewed during the transitional period from 2020-2030 to take into account a further potential tightening of the NZEB requirements.

For **countries outside the EU alternative schemes** can be used as proxies. These include, established schemes such as 'green building' certifications or building regulations and standards may be used as alternative proof of eligibility, upon verification by the Sustainable Finance Platform. The organisation responsible for the scheme can apply for official recognition of the scheme by proving that a specific level of certification/regulation is at least equivalent to the taxonomy mitigation and DNSH thresholds for the relevant climatic zone and building type.

Building renovations include major renovations and relative improvements resulting in a 30% reduction in PED

Building renovations must meet the local national and regional requirements for 'major renovation' as defined in the Energy Performance of Buildings Directive (EPBD). Building renovations are also eligible if they lead to a reduction in PED of at least 30% compared to the energy performance of the building before the renovation. The initial performance and estimated improvement has to be based on a specialised building survey and validated by (a) an energy performance certificate (EPC), (b) an energy audit conducted by an accredited independent expert or (c) another transparent/proportionate method.

Fig 3 The technical screening criteria for buildings

	Construction of new buildings	Renovation of existing buildings	Individual measures and professional services	Acquisition and ownership
Principle	*Construction of energy efficient new buildings designed to minimize energy use and carbon emissions **throughout the life cycle** of the building, as such saving a large part of the energy and carbon emissions associated with conventionally designed buildings.*	*Renovations of existing buildings to reduce energy use and GHG emissions during **remaining operational phase** and avoid emissions related to construction of new buildings.*	***Individual measures** to reduce energy use and carbon emissions for the operational phase of the building. The motivation can be demonstrated via an energy audit, energy performance certificate (EPC), or any other method acceptable by the Sustainable Finance Platform. **Professional services** are a necessary support and validation mechanism.*	*Acquisition of buildings designed to minimize energy use and carbon emissions **throughout the lifecycle** of the building. While data on carbon emissions during the life cycle is still limited, the acquisition of buildings that minimize energy use and carbon emissions **during the use phase** will already make an important contribution to directing users to high performing buildings.*
	Condition for non-eligibility: Construction of new buildings for the purpose of extraction, storage, transportation or manufacture of fossil fuels is not eligible	**Condition for non-eligibility**: Renovation of buildings for the purpose of extraction, storage, transportation or manufacture of fossil fuels is not eligible	-	**Condition for non-eligibility**: Acquisition and ownership of buildings for the purpose of extraction, storage, transportation or manufacture of fossil fuels is not eligible
Metric	**Primary Energy Demand (PED)**, defining the energy performance of a building: The annual PED associated with regulated energy use during the operational phase of the building life-cycle, calculated ex-ante according to the national methodologies for asset design assessment or as defined in the ISO 52000 standards expressed as **kWh/m^2 per year**	Metrics set by EPBD energy performance regulations for '**major renovation'**. For relative **improvements**: Annual **PED** linked to regulated energy use during the operational phase of the building life-cycle, calculated ex-ante according to the national methodologies for asset design assessment or as defined in the ISO 52000 standards expressed as **kWh/m^2 per year**	No metrics defined	**Primary Energy Demand (PED)**, defining the energy performance of a building: The annual PED associated with regulated energy use during the operational phase of the building life-cycle, calculated ex-ante according to the national methodologies for asset design assessment or as defined in the ISO 52000 standards expressed as **kWh/m^2 per year**
Threshold	Net PED of the new construction must be **20% lower than** the PED resulting from **the nearly zero-energy building (NZEB) requirements**. The (NZEB) requirements are defined in national regulation implementing the EPBD and are mandatory for all new buildings from 2021.	**Major renovation***: compliant with the building regulations for 'major renovations' transposing the EPBD. EPBD's cost-optimal minimum energy requirements must be met. **Relative improvement**:** renovation leads to a **reduction of PED of at least 30%** in comparison to the building's energy performance before renovation. The initial energy performance and improvement are based on a specialized building survey, and validated by (a) an energy performance certificate (EPC), (b) an energy audit by an accredited independent expert, or (c) another method (transparent & proportionate).	**Individual measures that meet the minimum EPBD requirements** for individual components and systems (extra insulation, new energy efficient windows/ doors, etc.) **Individual measures that meet specific requirements** (efficient circulating pumps, LED lighting appliances, low-flow kitchen and sanitary water fittings, etc.) **Individual measures always eligible** (smart thermostat systems, building and energy management systems, charging stations electric vehicles, smart meters, etc). **Individual measures installed on-site as building service** (solar photovoltaic systems, solar hot water panels, wind turbines, upgrade heat pumps, energy storage units, etc). **Professional services eligible** (technical consultations, accredited energy audits and building performance assessments, etc).	**Buildings acquired before 31 December 2020**: Building must be in **the top 15%** of the local existing stock in terms of operational PED, in kWh/m^{2}y based upon -A representative sample of the building stock in the area where the building is located (city, region or country), distinguishing at least between commercial and residential. -EPCs may be used to demonstrate that a specific level is within the top 15%. -For large non-residential buildings efficient building operations must also be ensured through dedicated energy management. **Buildings acquired after 31 December 2020**: -Criteria for new construction at the time of acquisition. -For large non-residential buildings efficient building operations must also be ensured through dedicated energy management.

* A **'major renovation'** is a renovation of a building where: a) the total cost of the renovation relating to the building envelope or technical building systems is higher than 25% of the building (excl. the value of the land) and b) more than 25% of the surface of the building envelope undergoes renovation
** The **30% improvement** must result from an actual reduction in PED (excluding net PED reduction through renewable energy sources), and can be achieved through a succession of measures within a maximum of three years.
Source: TEG, ING

For **countries outside the EU alternative schemes** can also be used as proxies for building renovations. As for new constructions, established schemes such as 'green building' certifications or building regulations and standards may be used as alternative proof of eligibility, upon verification by the Sustainable Finance Platform.

Individual measures and professional services are aimed at reducing the energy and/or carbon emissions in buildings. The requirements for individual measures are based upon cost-optimal measures defined in the applicable regulation transposing the EPBD. The motivation for investments linked to individual measures, such as the installation energy efficient windows or solar hot water panels, to name some examples, must be demonstrated though EPC labels or other transparent or proportionate methods accepted by the Sustainable Finance Platform. Professional services, such as for example technical consultation, building performance assessments or energy management services, are seen as an essential support and validation mechanism for building renovation. They provide the necessary assessment of building conditions and potential for energy efficiency and can deliver energy savings via efficient building operations.

The top 15% best-in-class approach only applies to buildings built before 2021

Acquisition and ownership of buildings are aimed at reducing the energy use and/or carbon emissions in buildings. This can make a substantial contribution to climate change mitigation, in the TEG's view, by creating demand for such buildings and by sending a clear signal to the market that the acquisition of such buildings can help reduce future potential risk and value depreciation. For buildings built after 2020 the same criteria apply as for the construction of new buildings, ie, a net primary energy demand (PED) that is at least 20% lower than the NZEB primary energy demand. Buildings built before 2021 are assessed based upon a best-in-class approach, which requires the performance of the building to be in the top 15% of the local existing stock in terms of operational PED. For this purpose, the performance of the asset should be compared with a representative sample of buildings in the area where the building is located, where a distinction should at least have been made between residential and non-residential buildings. Certification schemes such as EPCs may be used as evidence of eligibility, if adequate data is available to demonstrate that a specific level falls within the top 15%. The updated technical screening criteria no longer refer to a specific minimum EPC level of B. The TEG recognizes that more work needs to be done in order to define absolute thresholds corresponding to the top 15% of the building stock. Large non-residential buildings must meet additional requirements, to ensure that these buildings are operated efficiently through dedicated energy management.

Again, for **countries outside the EU alternative schemes** can be used as proxies of eligibility, with established schemes such as 'green building' certifications or building regulations and standards offering the alternative proof of eligibility, upon verification by the Sustainable Finance Platform.

The "do no significant harm" assessment

The DNSH criteria aim to avoid significant harm to other environmental projects

The taxonomy's **"do no significant harm" (DNSH) criteria** specify the minimum requirements to be met to avoid significant harm to the remaining other environmental objectives relevant to each economic activity.

Under the taxonomy regulation, an economic activity does significant harm to the climate adaptation objective, if the activity leads to an increased adverse impact of the current and expected climate, on itself or for other people, nature and assets. The TEG's DNSH to adaptation criteria ensures that a) an economic activity must reduce all material physical climate risk to the activity to the extent possible and on a best effort basis, while b) the economic activity and its adaptation measures should not adversely affect the adaptation efforts of other people, nature and assets. Figure 4 gives an overview of the DNSH criteria per other environmental objectives.

For example, to DNSH to the sustainable use and protection of water and marine resources, all relevant water appliances (shower solutions, flushing reservoirs, etc) for the construction of new buildings or building renovations should be in the top 2 classes for water consumption of the EU water label. The transition to a circular economy is not harmed if 80% of the non-hazardous construction and demolition waste is recycled. To ensure pollution prevention and control, building components should not contain asbestos or other substances of very high concern.

Fig 4 Do no significant harm assessment construction and real estate activities

	Construction of new buildings	Building renovations	Individual measures and professional services	Acquisition and ownership
2. Adaptation	Reduce material physical climate risks on a best efforts basis (identified through a climate risk assessment)	Reduce material physical climate risks on a best efforts basis (identified through a climate risk assessment)	Reduce material physical climate risks on a best efforts basis (identified through a climate risk assessment)	Reduce material physical climate risks on a best efforts basis (identified through a climate risk assessment)
	Support system adaptation (no adverse effect on adaptation efforts other people/assets)	Support system adaptation (no adverse effect on adaptation efforts other people/assets)	Support system adaptation (no adverse effect on adaptation efforts other people/assets)	Support system adaptation (no adverse effect on adaptation efforts other people/assets)
3. Water	All relevant water appliances must be in the top 2 classes for water consumption of the EU Water Label	All relevant new water appliances must be in the top 2 classes for water consumption of the EU Water Label	-	-
4. Circular economy	≥ 80% of the non-hazardous construction and demolition waste must be prepared for re-use or sent for recycling, or other material recovery	≥ 80% of the non-hazardous construction and demolition waste must be prepared for re-use or sent for recycling, or other material recovery	-	-
5. Pollution	It is ensured building components and materials do not contain asbestos nor substances of very high concern (based on the REACH regulation Authorisation List)	It is ensured building components and materials do not contain asbestos nor substances of very high concern (based on the REACH regulation Authorisation List)	It is ensured building components and materials do not contain asbestos nor substances of very high concern (based on the REACH regulation Authorisation List)	-
	If the property is located on a potentially contaminated site (brownfield site), the site must be inspected for potential contaminants	Before starting the renovation work, a competent specialist (with training in identifying asbestos and other substances of concern) must carry out a building survey. Trained personnel should remove the asbestos (health monitoring)	In case of thermal insulation to the existing building envelope, a competent specialist (with training in identifying asbestos and other substances of concern) must carry out a building survey. Trained personnel should remove the asbestos (health monitoring)	If the property is located on a potentially contaminated site (brownfield site), the site must be inspected for potential contaminants
	Non-road mobile machinery used on the construction site should comply with the NRMM Directive requirements	Non-road mobile machinery used on the construction site should comply with the NRMM Directive requirements	-	-
6. Ecosystems	New constructions must not be built on protected natural areas (excl. visitor centres, museums, technical facilities)	-	-	The building must not be built on protected natural areas (excl. visitor centres, museums, technical facilities)
	New constructions must not be built on arable or greenfield land of recognised high biodiversity value and land that serves as habitat for endangered species	-	-	The buildings must not be built on arable or greenfield land of recognised high biodiversity value and land that serves as habitat for endangered species
	≥ 80% of the timber products used in new construction for structures, cladding and finishes must be recycled/ reused or sourced from sustainably managed forests (as certified by third-party certification audits)	≥ 80% of the timber products used in the renovation for structures, cladding and finishes must be recycled/ reused or sourced from sustainably managed forests (as certified by third-party certification audits)	-	-

Source: TEG, ING

Minimum social safeguards

The ILO's eight fundamental conventions form the minimum social safeguards

The taxonomy's **minimum safeguards** refer to the procedures implemented by the undertaking carrying out an economic activity to ensure alignment with:

- The OECD Guidelines for Multinational Enterprises;
- The UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions of the International Labour Organisation's (ILO) declaration on Fundamental Rights and Principles at Work, ie,
  - Freedom of association and right to organize;
  - Right to organize and of collective bargaining;
  - Right not to be subject to forced or compulsory labour;
  - Abolition of forced and compulsory labour;
  - Minimum age: right not to be subject to child labour;
  - Elimination of the worst forms of child labour;
  - Equal remuneration for men and women workers;
  - Non-discrimination with respect to employment and occupation.

The OECD Guidelines for Multinational Enterprises are recommendations on responsible business conduct to multinational enterprises based in countries adhering to the guidelines. While focusing on multinational enterprises, they should also apply to domestic companies. The TEG encourages companies (and investors) to implement all these recommendations in detail, even though compliance should mainly center on 1) human rights, 2) labour rights, and 3) combatting bribery, bribe solicitation and extortion as the taxonomy applies these recommendations at activity and not company/ institutional level according to the TEG. The OECD guidelines are also aligned with the UN Guiding Principles and the fundamental ILO labour conventions.

The TEG stipulates that large companies required to comply with the non-financing reporting directive (NFRD) will likely assess their compliance with the DNSH and minimum safeguard requirements when reporting on their % turnover and capex compliant with the taxonomy regulation. For other companies, investors would have to assess the compliance themselves. In our view, the compliance with the "do no significant harm" assessment and social safeguards remain one of the most challenging requirements to consider when investing in green bonds, as they may not only touch upon the entity issuing the bonds, but also on the assets financed by the bond proceeds.

As facilitating sustainable investments remains high on the political agenda in Europe, also in light of the European green deal, it seems quite crucial in our view that the relevant information is made available to investors in an easily accessible manner for them to verify the full taxonomy alignment of their (bond) investments, including in the field of the DNSH and social safeguard criteria. We still doubt that a simple claim of an issuing entity of the taxonomy alignment of a green bond issued will be sufficient. We reiterate that this could ultimately favour the selection of fewer loans of larger sizes (such as renewable energy loans or commercial real estate assets) for green portfolio purposes over those of smaller size and larger in number (such as residential real estate loans) as a means to more easily prove the alignment of the loans with all the taxonomy criteria and EU green bond standard requirements.

Appendix 1: The Taxonomy's objectives in detail

The Taxonomy's six environmental objectives are as follows:

Avoid and reduce greenhouse gas emissions

1

Substantial contribution to climate change mitigation:
The economic activity should substantially contribute to the stabilisation of greenhouse gas concentrations in the atmosphere at the level which prevents dangerous anthropogenic interference with the climate system consistent with the long-term temperature goal of the Paris Agreement by **avoiding or reducing greenhouse gas emissions** or **the increase of greenhouse gas removals** through:

- Generating, transmitting, storing, distributing or using renewable energy, including through using innovative technology with a potential for significant future savings or through necessary reinforcement or extension of the grid;
- Improving energy efficiency, except for power generation activities via the use of solid fossil fuels;
- Increasing clean or climate-neutral mobility;
- Switching to the use of sustainably sourced renewable materials;
- Increasing the use of environmentally safe carbon capture and utilisation (CCU), and carbon capture and storage (CCS) technologies that deliver a net reduction in greenhouse gas emissions;
- Strengthening land carbon sinks, including through avoiding deforestation and forest degradation, restoration of forests, sustainable management and restoration of croplands, grasslands and wetlands, afforestation and regenerative agriculture. Phasing out anthropogenic emissions of greenhouse gases;
- Establishing energy infrastructure required for enabling decarbonisation of energy systems;
- Producing clean and efficient fuels from renewables or carbon-neutral sources;
- Enabling any of the aforementioned activities to make a substantial contribution to one of more of the environmental objectives.

Reduce the risk of an adverse impact on climate

2

Substantial contribution to climate change adaptation:
The economic activity contributes substantially to **climate change adaptation**, where the activity:

- Includes adaptation solutions that either substantially reduce the risk of the adverse impact of the current climate and the expected future climate on that economic activity or substantially reduce that adverse impact, without increasing the risk of an adverse impact on people, nature or assets;
- Provides adaptation solutions that contribute substantially to preventing or reducing the risk of the adverse impact of the current climate and the expected future climate on people, nature or assets, without increasing the risk of an adverse impact on other people, nature or assets.

They shall as a minimum prevent or reduce:

- The location-specific and context-specific adverse impact of climate change on the economic activity;
- The potential adverse impact of climate change on the environment within which the economic activity takes place.

Protect water and marine resources

3

Contribution to sustainable use and protection of water and marine resources:
An economic activity contributes substantially to the sustainable use and protection of water and marine resources where the activity either contributes substantially (1) to achieving the **good status of bodies of water**, including bodies of surface water and groundwater or to preventing the deterioration of bodies of water that already have good status, or (2) contributes substantially to achieving the **good environmental status of marine waters** or to preventing the deterioration of marine waters that are already in good environmental status, by:

- Protecting the environment from the adverse effects of urban and industrial waste-water discharges, including from contaminants of emerging concern such as pharmaceuticals and microplastics, for example by ensuring the adequate collection, treatment and discharge of urban and industrial waste waters;
- Protecting human health from the adverse impact of any contamination of water intended for human consumption by ensuring that it is free from any micro-organisms, parasites and substances that constitute a potential danger to human health as well as increasing people's access to clean drinking water;
- Improving water management and efficiency, including by protecting and enhancing the status of aquatic ecosystems, by promoting the sustainable use of water through the long-term protection of available water resources, among other things, through measures such as water reuse, by ensuring the progressive reduction of pollutant emissions into surface water and groundwater, by contributing to mitigating the effects of floods and droughts, or through any other activity that protects or improves the qualitative and quantitative status of water bodies;
- Ensuring the sustainable use of marine ecosystem services or contributing to the good environmental status of marine waters, including by protecting, preserving or restoring the marine environment and by preventing or reducing inputs in the marine environment;
- Enabling any of the aforementioned activities to make a substantial contribution to one of more of the environmental objectives.

Contribute to waste prevention and to re-use and recycling

4

Substantial contribution to the circular economy and waste prevention and recycling:
The activity should contribute substantially to the transition to a **circular economy**, including waste prevention and re-use and recycling, by:

- Using natural resources, including sustainably sourced bio-based and other raw materials, in production more efficiently, including by;
  - reducing the use of primary raw materials or increasing the use of by-products and secondary raw materials;
  - resource and energy efficiency measures.
- Increasing the durability, reparability, upgradability or reusability of products, in particular in designing and manufacturing activities;
- Increasing the recyclability of products, including the recyclability of individual materials contained in those products, among other things, by substitution or reduced use of products and materials that are not recyclable, in particular in designing and manufacturing activities;
- Substantially reducing the content of hazardous substances and substitutes substances of very high concern in materials and products throughout their life

cycle, including by replacing such substances with safer alternatives and ensuring traceability;

- Prolonging the use of products, including through reuse, design for longevity, repurposing, disassembly, remanufacturing, upgrades and repair, and sharing products;
- Increasing the use of secondary raw materials and their quality, including by high-quality recycling of waste;
- Preventing or reducing waste generation, including the generation of waste from the extraction of minerals and waste from the construction and demolition of buildings;
- Increasing preparing for re-use and recycling of waste;
- Increasing the development of the waste management infrastructure needed for prevention, for preparing for re-use and for recycling, while ensuring that the recovered materials are recycled as high-quality secondary raw material input in production, thereby avoiding downcycling;
- Minimising the incineration of waste and avoids the disposal of waste, including landfilling, in accordance with the principles of the waste hierarchy;
- Avoiding and reducing litter;
- Enabling any of the aforementioned activities to make a substantial contribution to one of more of the environmental objectives.

Prevent pollution

5

Substantial contribution to pollution prevention and control:
The activity contributes substantially to **pollution prevention and control** if it contributes substantially to environmental protection from pollution by:

- Preventing or, where that is not practicable, reducing pollutant emissions into air, water or land, other than greenhouse gasses;
- Improving levels of air, water or soil quality in the areas in which the economic activity takes place whilst minimising any adverse impact on, human health and the environment or the risk thereof;
- Preventing or minimising any adverse impact on human health and the environment of the production, use or disposal of chemicals;
- Cleaning up litter and other pollution;
- Enabling any of the aforementioned activities to make a substantial contribution to one or more of the environmental objectives.

Protect and enhance biodiversity and ecosystems

6

Substantial contribution to protection of healthy ecosystems:
The activity should contribute substantially to **protecting, conserving and enhancing biodiversity and ecosystem services** or to achieving the good condition of ecosystems, or to protecting ecosystems that are already in good condition through:

- Nature and biodiversity conservation, including achieving favourable conservation status of natural and semi-natural habitats and species, or preventing their deterioration where they already have favourable conservation status, and protecting and restoring terrestrial, marine and other aquatic ecosystems in order to improve their condition and enhance their capacity to provide ecosystem services;
- Sustainable land use and management, including adequate protection of soil biodiversity, land degradation neutrality and the remediation of contaminated sites;

- Sustainable agricultural practices, including those that contribute to enhancing biodiversity or to halting or preventing the degradation of soils and other ecosystems, deforestation and habitat loss;
- Sustainable forest management, including practices and uses of forests and forest land that contribute to enhancing biodiversity or to halting or preventing degradation of ecosystems, deforestation and habitat loss;
- Enabling any of the aforementioned activities to make a substantial contribution to one of more of the environmental objectives.

Appendix 2: Technical Screening Criteria – the sectors

Fig 5 Overview climate change mitigation sectors

	Sector
1	**Forestry**
1.1	Afforestation
1.2	Rehabilitation, restoration
1.3	Reforestation
1.4	Existing forest management
1.5	Conservation forest
2	**Agriculture**
2.1	Growing of perennial crops
2.2	-
2.3	Growing of non-perennial crops
2.4	Livestock production
3	**Manufacturing**
3.1	Manufacture of low carbon technologies
3.2	Manufacture of cement
3.3	Manufacture of aluminium
3.4	Manufacture of iron and steel
3.5	Manufacture of hydrogen
3.6	Manufacture of other inorganic basic chemicals
3.7	Manufacture of other organic basic chemicals
3.8	Manufacture of fertilizers and nitrogen compounds
3.9	Manufacture of plastics in primary form
4	**Electricity, gas, stream and air conditioning supply**
4.1	Production of electricity from solar pv (should this be solar power)
4.2	Production of electricity from concentrated solar power
4.3	Production of electricity from wind power
4.4	Production of electricity from ocean energy
4.5	Production of electricity from hydropower
4.6	Production of electricity for geothermal
4.7	Production of electricity for gas (not exclusive to natural gas)
4.8	Production of electricity for bioenergy (biomas, biogas and biofuels)
4.9	Transmission and distribution of electricity
4.10	Storage of electricity
4.11	Storage of thermal energy
4.12	Storage of hydrogen
4.13	Manufacture of biomass, biogas or biofuels
4.14	Retrofit and gas transmission and distribution networks
4.15	District heating/cooling distribution
4.16	Installation and operation of electric heat pumps
4.17	Cogeneration of heat/cool and power from concentrated solar power
4.18	Cogeneration of heat/cool and power from geothermal energy
4.19	Cogeneration of heat/cool and power from gas (not exclusive to natural gas)
4.20	Cogeneration of heat/cool and power from bioenergy (biomass, biogas, biofuels)
4.21	Production of heat/cool from concentrated solar power
4.22	Production of heat/cool from geothermal
4.23	Production of heat/cool from gas combustion
4.24	Production of heat/cool using waste heat
4.25	Production of heat/cool from bioenergy (biomass, biogas and biofuels)
5	**Water, sewerage, waste and remediation**
5.1	Water collection, treatment and supply
5.2	Centralized wastewater treatment
5.3	Anaerobic digestion of sewage sludge
5.4	Separate collection and transport of non-hazardous waste in source segregated fractions
5.5	Anaerobic digestion of bio-waste
5.6	Composting of bio-waste
5.7	Material recovery from non-hazardous waste
5.8	Landfill gas capture and utilization
5.9	Direct air capture of CO_2
5.10	Capture of anthropogenic emissions
5.11	Transport of CO_2
5.12	Permanent sequestration of captured CO_2
6	**Transportation and storage**
6.1	Passenger and rail transport (interurban)
6.2	Freight rail transport
6.3	Public transport
6.4	Infrastructure for low carbon transport (land transport)
6.5	Passenger cars and commercial vehicles
6.6	Freight transport services by road
6.7	Interurban scheduled road transport
6.8	Inland passenger water transport
6.9	Inland freight water transport
6.10	Infrastructure for low carbon transport (water transport)
7	**Information and communications**
7.1	Data processing, hosting and related activities
7.2	Data-driven solutions for GHG emission reductions
8	**Buildings**
8.1	Construction of new buildings
8.2	Building renovation
8.3	Individual measures and professional services
8.4	Acquisition and ownership

Source: TEG, ING

Fig 6 Overview climate change adaptation sectors

	Sector
1	**Forestry**
1.1	Afforestation
1.2	Rehabilitation, restoration
1.3	Reforestation
1.4	Existing forest management
1.5	Conservation forest
2	**Agriculture**
2.1	Growing of perennial crops
2.2	Growing of non-perennial crops
2.3	Livestock production
3	**Manufacturing**
3.1	Manufacture of low carbon technologies
3.2	Manufacture of cement
3.3	Manufacture of aluminium
3.4	Manufacture of iron and steel
3.5	Manufacture of hydrogen
3.6	Manufacture of other inorganic basic chemicals
3.7	Manufacture of other organic basic chemicals
3.8	Manufacture of fertilizers and nitrogen compounds
3.9	Manufacture of plastics in primary form
4	**Electricity, gas, stream and air conditioning supply**
4.1	Production of electricity from solar pv (should this be solar power)
4.2	Production of electricity from concentrated solar power
4.3	Production of electricity from wind power
4.4	Production of electricity from ocean energy
4.5	Production of electricity from hydropower
4.6	Production of electricity for geothermal
4.7	Production of electricity for gas (not exclusive to natural gas)
4.8	Production of electricity for bioenergy (biomas, biogas and biofuels)
4.9	Transmission and distribution of electricity
4.10	Storage of electricity
4.11	Storage of thermal energy
4.12	Storage of hydrogen
4.13	Manufacture of biomass, biogas or biofuels
4.14	Retrofit and gas transmission and distribution networks
4.15	District heating/cooling distribution
4.16	Installation and operation of electric heat pumps
4.17	Cogeneration of heat/cool and power from concentrated solar power
4.18	Cogeneration of heat/cool and power from geothermal energy
4.19	Cogeneration of heat/cool and power from gas (not exclusive to natural gas)
4.20	Cogeneration of heat/cool and power from bioenergy (biomass, biogas, biofuels)
4.21	-
4.22	Production of heat/cool from concentrated solar power
4.23	Production of heat/cool from geothermal
4.24	Production of heat/cool from gas (not exclusive natural gas)
4.25	Production of heat/cool from bioenergy (biomass, biogas and biofuels)
4.26	Production of heat/cool using waste heat
5	**Water, sewerage, waste remediation**
5.1	Water collection, treatment and supply
5.2	Centralized wastewater treatment
5.3	Anaerobic digestion of sewage sludge
5.4	Separate collection and transport of non-hazardous waste in source segregated fractions
5.5	Anaerobic digestion of bio-waste
5.6	Composting of bio-waste
5.7	Material recovery from non-hazardous waste
5.8	Landfill gas capture and utilization
5.9	Direct air capture of CO2
5.10	Capture of anthropogenic emissions
5.11	Transport of CO2
5.12	Permanent sequestration of captured CO2
6	**Transportation and storage**
6.1	Passenger and rail transport (interurban)
6.2	Freight rail transport
6.3	Public transport
6.4	Infrastructure for low carbon transport (land transport)
6.5	Passenger cars and commercial vehicles
6.6	Freight transport services by road
6.7	Interurban scheduled road transport
6.8	Inland passenger water transport
6.9	Inland freight water transport
6.10	Infrastructure for low carbon transport (water transport)
7	**Buildings**
7.1	Construction of new buildings
7.2	Building renovation
8	**Financial and insurance activities**
8.1	Non-life insurance
9	**Professional, scientific and technical activities**
9.1	Engineering activities and related technical consultancy dedicated to adaptation to climate change

Source: TEG, ING

Appendix 3: The EU green bond standard

The EU green bond standard should be a voluntary standard

In June 2019, the TEG published its final report with recommendations to the European Commission for an **EU green bond standard (GBS)**. The GBS is proposed by the TEG as a voluntary standard to issuers, building on market best practices such as the green bond principles (GBP). The report was followed in March 2020, by the TEG's publication of a usability guide, that also included in an updated green bond standard model to reflect the December 2019 political agreement on the taxonomy regulation.

The TEG defines an **EU green bond** as *any type of listed or unlisted bond or capital market debt instrument issued by a European or international issuer that is aligned with the EU green bond standard and therefore meets the following requirements:*

- The issuer's **green bond framework** has to confirm the alignment of the EU green bond with the EU green bond standard,
- The proceeds, or an amount equal to the proceeds, shall be exclusively used to finance or refinance (in part or in full) new and/or existing **green projects** as shall be described in the bond documentation,
- The alignment of the bond with the EU green bond standard has been verified by an approved **verifier**.

Eligible green projects are aligned with the taxonomy's environmental objectives

The term EU green bond can be used both by European and international issuers, but only where the aforementioned criteria are met. Existing green bonds may voluntarily be reclassified as EU green bond. Proceeds from EU green bonds can be allocated only to finance or refinance green projects, subject to confirmation by an approved verifier. The **green projects** contribute substantially to at least one of the EU's environmental objectives identified in the taxonomy proposals, ie,

- Climate change mitigation;
- Climate change adaptation;
- Sustainable use and protection of water and marine resources;
- Transition to a circular economy;
- Pollution prevention and control;
- Protection and restoration of biodiversity and ecosystems.

These projects do not significantly harm any of the other environmental objectives and comply with the minimum safeguards. The green projects will be described in the issuer's green bond framework and in the green bond legal documentation (prospectus or final terms). They can include physical assets and financial assets such as loans, or any capital expenditure and selected operating expenditures. For sovereigns and sub-sovereigns, they include relevant public investments, expenditures and subsidies. There is no specific look-back period for green assets, while a maximum three-year look-back period ahead of issuance applies to eligible green operating expenditures.

The green bond framework

The issuer's **green bond framework** has to provide insight into the following aspects:

- The **environmental objectives** of the EU green bond or green bond programme and how the issuer's strategy is aligned with these objectives, plus the issuing rationale;
- The **process** by which the issuer determines **how green projects align with the EU taxonomy** and if applicable qualitative and quantitative TSC and minimum safeguards and with support of an approved verifier. Issuers are also encouraged to disclose any green standards or certifications referenced in the project selection;
- A description of the **green projects** to be (re)financed by the EU green bond:
  - Does the green project contribute directly to the achievement of the environmental objective or does it enable others;

  - Green projects contributing to climate change mitigation: is the project already near zero carbon or does it contribute to transition?
  - Where green projects are not identified: type & sectors of the project.

- The process for **linking** the issuer's lending or investment operations for **green projects to the EU green bond issued**. The amount allocated to green projects has to be managed appropriately by the issuer, until the amount equals the net proceeds and document the allocation through a formal internal process;
- A description of the **reporting** (envisaged frequency, content, metrics) and if available the methodology and the assumptions to be used for the calculation of key impact metrics.

Any changes made to the Taxonomy will not apply to outstanding EU green bonds (grandfathering). New issues will be aligned with the most recent version relevant to their green projects.

Allocation and impact reporting

The allocation and impact report can cover several bond issuances under the same green bond framework (GBF) and can be published as separate reports or as a combined report. The reporting can be either on a project-by-project level or on a portfolio level.

Issuers should report at least annually, until full allocation of the proceeds, on the allocation

Allocation reporting

The issuer shall report **at least annually**, until full allocation of the bond proceeds to green projects and thereafter, in case of any material change in this allocation. Verification is only required for the final allocation report. The allocation report includes:

- A **statement of alignment** with the **EU green bond standard**;
- The **breakdown of allocated amounts to green projects** at least on sector level. More detailed reporting is encouraged.
- The **geographical distribution** of green projects.

Furthermore, issuers are recommended to include information on whether the green projects contribute directly to the achievement of the environmental objective enable others. For green projects contributing to climate change mitigation issuers should also include information on whether the projects are already near zero carbon or contribute to transition. The final allocation report should also include information on all amounts allocated to green projects at least on a sector level.

Issuers should report on impact at least once during the lifetime after full proceed allocation

Impact reporting

The issuer shall report on the impact of green projects at least **once during the lifetime** after full allocation of the bond proceeds to the green projects and thereafter, in case of material changes in this allocation. Verification of the impact reporting is not mandatory, but issuers are encouraged to have their impact reporting reviewed by an independent third party. The impact report includes

- A **description** of the green projects;
- The **environmental objectives** pursued by the green projects;
- A breakdown of green projects by a) the **nature** of what is being financed (assets, capital expenditure, operational expenditure, etc.), b) the **share of financing** (projects financed after issuance) and **refinancing** (projects ahead of issuance);
- Information, and if possible, metrics about the projects' **environmental impacts**;
- If not detailed in the GBF, information on the **methodology and assumptions** used to evaluate the green projects impacts.

Verification

Issuers have to appoint **external reviewers** to confirm:

- **Before or at the time of issuance**, through an initial verification, the alignment of their green bond framework with the requirements of the EU green bond standard;
- **After allocation of proceeds**, through a verification, the allocation of the proceeds to green eligible projects in alignment with the allocation reporting requirements of the EU green bond standard.

Verifications have to be made publicly available on the issuer's website and through any other accessible communication channel as appropriate. The verification of the GBF is made publicly available before or at the time of issuance of the EU green bonds. Verification of the final allocation report should be made publicly available together with the publication of the final allocation report, however, at the latest one year after the publication.

Verification providers will be subject to registration/authorization, including explicit requirements related to:

- Professional codes of conduct related to business ethics, conflicts of interest and independence;
- Professional minimum qualifications and quality assurance and control;
- Standardised procedures for verification.

Verification providers have to disclose their relevant credentials and expertise and the scope of the review conducted in the verification report. Before the supervision of verifiers is in place, a market-based, voluntary interim registration process for verifiers of EU green bonds may be established.

Appendix 4: Renewed sustainable finance strategy

By building on the 2018 action plan on financing sustainable growth, the renewed sustainable finance strategy aims to provide a roadmap with new actions to **increase private investments in sustainable projects and activities**, and to support the different actions set out in the **European green deal**. On 8 April 2020, the European Commission released a consultation on the renewed sustainable finance strategy. The consultation questions were mostly organised along the lines of the three main actions identified for the renewed sustainable finance strategy, and include the following:

- Strengthening the foundations for sustainable finance:
  - Company reporting and transparency
  - Accounting standards and rules
  - Sustainability research and ratings
  - Definitions, standards and labels for sustainable financial assets and financial products: (a) EU green bond standard, (b) prospectus and green bonds, and (c) other standards and labels.
  - Capital markets infrastructure
  - Corporate governance, long-termism and investor engagement.
- Increasing opportunities for citizens, financial institutions and corporates to enhance sustainability:
  - Mobilising retail investors and citizens
  - Better understanding the impact of sustainable finance on sustainability factors
  - Green securitisation
  - Digital sustainable finance
  - Project Pipeline
  - Incentives to scale up sustainable investments
  - The use of sustainable finance tools and frameworks by public authorities
  - EU investment protection framework
  - Promoting sustainable finance globally
- Reducing and managing climate and environmental risks:
  - Identifying exposures to harmful activities and assets and disincentivising environmentally harmful investments
  - Financials stability risk
    - Insurance prudential framework
    - Banking prudential framework
    - Asset managers
    - Pension providers
  - Credit rating agencies
  - Natural capital accounting or “environmental footprint”
  - Improving resilience to adverse climate and environmental impacts
    - Climate-related loss and physical risk data
    - Financial management of physical risk

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