



**EU TECHNICAL EXPERT GROUP ON
SUSTAINABLE FINANCE**

**Report of the Technical Expert Group (TEG)
subgroup on Green Bond Standard**

Proposal for an EU Green Bond Standard

Interim Report

Document for feedback

Green Bond Standard Subgroup

6 March 2019

Disclaimer

This is an interim version of the Report to be prepared by the TEG Green Bond Standard Subgroup.

The views reflected in this Report are the views of the experts only.

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EXECUTIVE SUMMARY AND PRELIMINARY RECOMMENDATIONS

In March 2018 the European Commission (EC) published its Action Plan on Financing Sustainable Growth (Action Plan) which sets out a comprehensive strategy to further connect finance with sustainability¹. In Action 2 of the Action Plan, the EC commits to create standards and labels for green financial products.

In June 2018, the EC set up a technical expert group on sustainable finance (TEG) to assist in four key areas of the Action Plan through the development of the following: 1) a unified classification system for sustainable economic activities, 2) an European Union (EU) Green bond standard, 3) benchmarks for low-carbon investment strategies, and 4) guidance to improve corporate disclosure of climate-related information. The TEG began work in July 2018 and has a one-year mandate, which it carries out through formal plenaries and sub group meetings for each work stream. The TEG has 35 members that come from civil society, academia, business, and the finance sector and includes additional members and observers from EU and international public bodies².

This is the interim report of the TEG, which presents the status of the work conducted so far (as of February 2019) by the Green Bond Standard subgroup of TEG, around the EU Green Bond Standard (also referred to as the “EU GBS”), provides a rationale for action (Chapter 2) and explains how such a standard should be developed and implemented in Europe (Chapter 3).

It proposes the content of a draft **EU Green Bond Standard** (see Annex 1), explains its purpose, sets its ambition level, and explains how we think the creation of this EU GBS will address barriers to market development (see section 3.1) and will support its role in channelling substantial financial flows to green projects.

The report also provides preliminary guidance to the EC on our proposed way forward for the EU GBS, including the creation of a **centralised accreditation regime for external verifiers** (see Chapter 4) and proposes possible legislative initiatives or amendments.

Last but not least, the report will elaborate on possible **incentives** (see Chapter 5), based on the EU GBS, to enhance the growth of green bond issuance and the links with other sustainable financing instruments in a wider context (see Chapter 6). It should also feed into the work being launched in parallel by the Commission on a potential EU Ecolabel for green financial products

¹ European Commission, “Action Plan: Financing Sustainable Growth”, 8 March 2018 available at <https://eur-lex.europa.eu/legal-content/EN/TfXT/PDF/?uri=CELEX:52018DC0097&from=EN>. The Action plan was a response to the Final Report of the High-Level Expert Group on Sustainable Finance established by the Commission in December 2016. The Final Report, published in January 2018 is available at https://ec.europa.eu/info/sites/info/files/180131-sustainable-finance-final-report_en.pdf

² https://ec.europa.eu/info/publications/sustainable-finance-technical-expert-group_en

Eleven preliminary recommendations for discussion and feedback

At this stage, the TEG is proposing the following eleven preliminary policy recommendations, four of which related to the establishment of the EU GBS, and seven are related to ways how European governments and other stakeholders can support the implementation of the EU GBS:

Preliminary TEG recommendations for the European Commission to establish a European Green Bond Standard

- **Recommendation #01: Create a voluntary EU Green Bond Standard.** The TEG proposes that the EC adopts a 'recommendation' to support the implementation of the EU green bonds without imposing a mandatory legal framework while accompanying it with appropriate incentives as described in Chapter 5. This recommendation should be accompanied by monitoring of market developments to evaluate the implementation of the EU GBS.
- **Recommendation #02: Monitor impact and consider further supporting action including possible legislation after an estimated period of 3 years.** The TEG recommends that the EC conduct a review of the take up and impact of the EU GBS after an estimated period of 3 years. The Commission would then consider further appropriate measures including if relevant the possible recourse to legislation in support of the implementation of the EU GBS.
- **Recommendation #03: Develop a legislative proposal for a centralised accreditation regime for external green bond verifiers to be potentially operated by ESMA.** The TEG recommends that the EC considers developing a legislative proposal to set up a centralised regime for authorisation and supervision of external verifiers to be potentially operated by ESMA, in cooperation with the future EC Platform on Sustainable Finance. The TEG will further develop this proposal in close consultation with ESMA and the EC.
- **Recommendation #04: Set up a market-based voluntary Accreditation Committee for external verifiers of green bonds for a transition period.** TEG also recommends that a market-based initiative, in cooperation with the EC, sets up an interim Accreditation Committee as soon as practicable to oversee and operate a transition regime for accreditation. The TEG will further develop this approach over the coming months.

Preliminary TEG recommendations to support the adoption of European Green Bond Standard:

Moreover, the TEG is also proposing seven additional preliminary recommendations suggesting how the EC, EU Member States governments and market participants can support of the implementation and the uptake of the EU GBS through both demand and supply-side measures:

- **Recommendation #05: Investors, in particular institutional investors are encouraged to adopt the requirements of the EU GBS when designing their green fixed-income investment strategies and to communicate their commitment and their expectations actively to green bond issuers as well as to underwriters.** Investors, in particular European institutional investors such as asset managers, pension funds and insurance undertakings as well as banks in their function as underwriter play an essential role in promoting standards. The TEG recommends that investors use the requirements of the EU GBS in their green fixed-income investment strategy and portfolios and communicate their expectations actively in their investor dialogue with bond issuers.

- **Recommendation #06: Adopt an ambitious disclosures regime for institutional investors.** Within the context of the revision of disclosures for institutional investors currently underway the TEG recommends that the EC puts in place an ambitious “comply or explain” type regime for periodic disclosure of EU Green Bond holdings by institutional investors such as asset managers, pension funds and insurance undertakings. Underwriters are also encouraged to disclose the portion of GBS underwritten versus other green bonds.
- **Recommendation #07: Consider promoting greening the financial system by expressing and implementing a preference for EU Green Bonds.** The TEG recommends that the European Central Bank, without prejudice to the principle of market neutrality, considers promoting greening the financial system by expressing and implementing a preference for EU Green Bonds when purchasing green bonds.
- **Recommendation #08. Develop credit enhancement guarantees for sub-investment grade green bonds.** The TEG recommends that the EC considers encouraging the institutions involved in the implementation of the Investment Plan for Europe (known as the Juncker Plan) to develop measures supporting the green bond market. Such measures could take the form of credit enhancement guarantees for sub-investment grade green bonds or the provision of anchor investment in green bond issuance, e.g. through dedicated funds.
- **Recommendation #09: The TEG encourages all types of bond issuers to issue their future green bonds in compliance with the requirements of the EU GBS.** The TEG encourages all public sector bond issuers, including sovereign green bond issuers by EU Member States, local governments, including regions and municipalities across the EU, government-backed entities in the EU as well as bilateral and multilateral agencies and development banks, and private-sector entities (corporate, industrial or financial companies, with or without public ownership), irrespectively whether they have already issued green bonds or not, to use the EU GBS for their future Green bond issuances.
- **Recommendation #10. The TEG recommends that the European Commission considers setting up a grant scheme to off-set the additional cost of external verification for issuers,** support capacity-building among accredited verifiers and promote the development and application of best practices in the EU and internationally.
- **Recommendation #11: Promote adoption of the EU Green Bond Standard through the EU eco-label for financial products.** The TEG recommends that the EC explicitly refers to the EU GBS in the technical criteria that are currently being developed for the EU ecolabel for financial products, so as to promote the adoption of the EU GBS among bond issuers.

Outreach, feedback process and next steps towards the final report in June 2019

The TEG will be actively seeking input and feedback through an outreach process to be conducted in March 2019. Feedback received from various stakeholders in this consultation, as well as through targeted outreach sessions will be carefully taken into account for the design of the EU GBS and the final report that the TEG will be presenting to the EC in June 2019. The subgroup intends to add section on the potential impacts of the EU GBS to the final report.

On that basis, and after a public consultation, the EC will decide on the next steps with respect to an EU GBS and other potential measures.

This Interim Report is intended to provide the basis for fruitful and constructive consultations as the TEG engages in the next phase of its work. The TEG welcomes comments, questions and discussions during the process of preparing its final report for publication in June 2019.

1. INTRODUCTION

1.1 Context

In March 2018 the European Commission published its Action Plan on Financing Sustainable Growth (Action Plan) which sets out a comprehensive strategy to further connect finance with sustainability. In Action 2 of the Action Plan, the European Commission (EC) commits to create standards and labels for green financial products.

In June 2018, the EC set up a technical expert group on sustainable finance (TEG) to assist in four key areas of the Action Plan through the development of the following: 1) a unified classification system for sustainable economic activities, 2) an EU green bond standard, 3) benchmarks for low-carbon investment strategies, and 4) guidance to improve corporate disclosure of climate-related information

The TEG began work in July 2018 and has a one-year mandate, which it carries out through formal plenaries and sub group meetings for each work stream. The TEG has 35 members that come from civil society, academia, business, and the finance sector and includes additional members and observers from EU and international public bodies³.

This is the interim report of the TEG, presenting the status of the work, conducted so far by the Green Bond Standard subgroup of TEG, around the Green Bond Standard for public feedback. This report proposes the content of an EU Green Bond Standard (EU GBS), explains its purpose, sets its ambition level, and explains how we think the creation of this EU GBS would influence market functioning. The subgroup intends to add a section on the potential impacts of the EU GBS in the final report.

The final report will provide further guidance to the EC on our proposed way forward for the EU GBS, including on possible legislative initiatives or amendments. In addition, the report will elaborate on possible incentives, based on the EU GBS, to enhance the growth of green bond issuance and the links with other sustainable financing instruments in a wider context. It should also feed into the work being launched in parallel by the EC on a potential EU Ecolabel for green financial products.

The feedback received from various stakeholders through targeted and open outreach sessions will be carefully taken into account for the design of the EU GBS and other content of this report. The TEG will present its report to the European EC in June 2019. On that basis, and after the public consultation, the EC will decide on the next steps with respect to an EU GBS and other potential measures.

1.2 Call for action

Financial market participants, together with society at large, have become increasingly aware of the risks related to global warming. The 2015 Paris Agreement on climate, the United Nations Sustainable Development Goals (SDGs), the October 2018 Intergovernmental Panel on Climate Change (IPCC) Special Report⁴, and many other policy measures urge accelerated climate action by all actors in the global economy – including businesses and financial institutions. Reducing greenhouse gas (GHG) emissions by transitioning to a low-carbon economy is critical to limiting global warming and building a sustainable economic system, as outlined in the EC's "Strategic

³ https://ec.europa.eu/info/publications/sustainable-finance-technical-expert-group_en

⁴ <http://www.ipcc.ch/report/sr15/>

long-term vision for a prosperous, modern, competitive and climate neutral economy”⁵. However, as a result of this transition, a wide range of carbon-intensive assets risk becoming “stranded” (i.e. unusable)⁶, which may also have a direct effect on the economy at large, and indirectly on sustainable development. It is also important to make sure that this transition is managed in a socially fair way.

Current levels of investment are not sufficient to support a climate-resilient, sustainable economic system that mitigates climate change and stops depletion of natural capital (air, water, land and biodiversity). More private capital flows need to be oriented towards sustainable investments to close the wide yearly gap of additional investments needed to meet the EU’s 2030 targets under the Paris Agreement (estimated at EUR 180 billion⁷). Likewise, even more investments will be needed to achieve climate neutrality by 2050 and to make progress with further environmental objectives of the EU in the field of water, resource efficiency and the maintenance of healthy ecosystems. Moreover, many of these investments are concentrated in sectors related to the energy and resources efficiency, such as transportation, real estate or infrastructures. They correspond to fixed assets enabling a low carbon economy. Given these assets are mainly financed by debt, a large portion of the climate/environmental/social funding gap will have to be financed by bond markets.

Investors and issuers of financial instruments need common metrics and definitions for what activities contribute positively to environmental objectives. Common language and harmonisation would enhance market efficiency and redirect financial flows to support transition towards a more sustainable economy. Time is of essence as the window of opportunity to act is closing in the next 20-30 year – both in terms of keeping global warming below a 1.5°C increase as well as avoiding possible environmental tipping points with respect to biodiversity, soil degradation, freshwater resources, etc.

1.3 The international green bond market

Green bond markets have grown fast in size and market coverage since the first green bond was issued in 2007 by the European Investment Bank and represents today a total of approximately 350bn euros outstanding, out of which 130bn or 34% have been issued by European issuers⁸. According to Moody’s⁹ global issuance has been largely dominated by issuers based in Europe, North America and Asia-Pacific but European issuers led with 40% of global issuance in 2018, up slightly from 37% in 2017.

Green bonds have given mainstream capital markets a quick way to map how the sustainability and green trends visible in the public debate are reflected in the real economy’s investments and functions. Standardisation of this market was greatly facilitated in 2014 when the Green Bond Principles (“GBP”) were published by several banks, subsequently supported by the

⁵ European Commission, “A Clean Planet for all: A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy”, 28 November 2018 available at https://ec.europa.eu/clima/policies/strategies/2050_en

⁶ European Systemic Risk Board Advisory Scientific Committee Report No 6, 2016 available at https://www.esrb.europa.eu/pub/pdf/asc/Reports_ASC_6_1602.pdf

⁷ European Commission, “Sustainable finance: Making the financial sector a powerful actor in fighting climate change,” 24 May 2018, available at http://europa.eu/rapid/press-release_IP-18-3729_en.htm

⁸ US\$ 389bn in green bonds globally (or EUR 350bn) out of which US\$ 145bn (or EUR 130bn) from Europe. *Bonds and Climate Change – the state of the market 2018*, Climate Bonds Initiative, January 2019. <https://www.climatebonds.net/resources/reports/bonds-and-climate-change-state-market-2018>

⁹ 2019 *Global Green Bond Outlook*, Moody’s Investor Services, 31 January 2019, <https://www.moody.com/newsandevents/topics/Green-Bonds-007034>

International Capital Market Association (ICMA) through a permanent secretariat, and adopted by the vast majority of market participants.

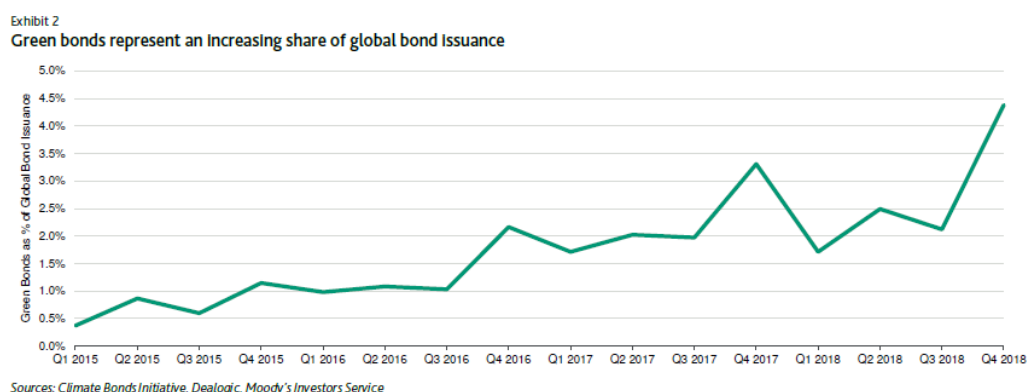
The GBP is built around four key mandatory principles: (i) the description of the use of proceeds which need to finance assets and projects with positive environmental impacts, (ii) the requirement of a clear process for the selection of projects and (iii) a description how the funds are allocated or tracked, (iv) reporting on the use of proceeds with, if possible, information on the environmental impact of the projects. In addition, the GBP formulate several recommendations, including the recommendation to obtain an external review and the recommendation for the issuer to explain the green bonds alignment with the issuer’s overall strategy¹⁰.

Green bonds represent a small but growing share of the total bond market. After an initial period when it was dominated by development banks and agencies, the green bond market has now spread into all debt capital market assets classes from corporate issuers (investment grade and high yield), sovereign issuers, asset-backed securities, projects bonds, emerging market and private placements. Green bonds markets now reflect the overall debt market.

Global green bond issuance increased to USD170-180bn in 2018 according to the preliminary data of Bloomberg NEF¹¹ and the Climate Bond Initiative¹². Market growth slowed markedly to 3-5% (year on year) in 2018 compared to the 70-80% annual growth of in 2017. The sovereign segment of the green bond market grew, however, dynamically, issuance reached USD17.6 billion in 2018 (64% year-on-year), Belgium and Ireland being the most important new issuers in 2018. Green debt markets are continuously meeting investor demands, by developing new financial product such as green loans and green commercial papers. Financial corporates were the most important issuers in 2018 with a total issuance of USD 49bn, or 29% of the annual global total (14% in 2017)

According to recent research conducted by Moody’s Investor Services (see Figure 1 below), green bond issuances represented more than 2% of global bond issuances in the last two years, rising to 4.4% in the last quarter of 2018.

Figure 1: Green bonds represent an increasing share of global bond issuance (source: Moody’s¹³)



¹⁰ <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>

¹¹ <https://about.bnef.com/blog/sustainable-debt-market-sees-record-activity-2018/>

¹² <https://www.climatebonds.net/resources/reports/2018-green-bond-market-highlights>

¹³ Idem. Moody’s (2019)

In the European bonds market, the green, social and sustainability bonds, excluding government issuances, already represented, on average, 4-5% since 2017 and have risen to approximately 10% of the total amount of bonds issued by European issuers in the last quarter of 2018 (see below).

Figure 2: Market share of green, social and sustainability bonds (courtesy of Crédit Agricole CIB Global Market Research)



Source: Bloomberg, Crédit Agricole CIB

The amount or share of green bonds varies by jurisdictions, economic sectors or size of the issuers. Some of the underlying reasons are linked to the overall dynamics and accessibility of bond markets, whereas other factors may relate to the availability of green assets and factors that are further discussed in Chapter 2. For instance, in Sweden corporates and investors are knowledgeable about sustainability, it is high on the political agenda and the domestic bond markets require a smaller issue size than Euromarkets. The majority of the Swedish issuers represent the real estate sector or municipalities, and the share of green bonds of all bonds issued in Swedish krona reached 11% in 2018¹⁴.

2 RATIONALE AND FUNDAMENTALS OF AN EU GREEN BOND STANDARD

2.1 The role and additionality of green bonds

The international bond markets are mainly used to raise capital for general (corporate or public) purposes based on the risk profile of the issuer represented by its credit rating and the remuneration offered in the form of interest paid. Traditional bond investors focus on these parameters rather than on the use of proceeds. Bonds are therefore typically refinancing instruments where capital is raised on the strength of the entire balance sheet of the issuer and the optimal level of debt it can support. The international bond markets generally prefer a large minimum issue size (from EUR 300 to 500 million) which is another reason for bonds being a refinancing instrument by nature as balance sheet financing allows for such scale.

Green bonds represent a considerable innovation through their focus on green use of proceeds, tracking, impact reporting and external reviews. They have provided bond investors with an unprecedented degree of transparency as well as a capacity to become involved in corporate strategies in a manner which was previously largely reserved to equity investors. It

¹⁴ Nordea/ Bloomberg

has also enabled bond markets to become a powerful force in green and climate mitigation finance.

Concerns have been raised however that the role of green bonds in financing new and especially additional green and climate mitigation projects has been limited. The criticism is often that these projects would have in any case been funded by the mainstream bond markets. This arises arguably as the result of a misunderstanding of the structural refinancing role of bonds as described above and from a confusion with project bonds that have fundamentally different characteristics from other bonds.

On the first point, the debt capital markets offer many options for issuers wishing to raise money against their balance sheets and to re-finance projects. This has been especially true in the context of recent and ongoing favourable market conditions. **Green bonds however ensure that refinancing occurs in a manner that uniquely serves the issuer's sustainability objectives and highlights them to all stakeholders.** Projects that are being refinanced through green bonds are presented with full transparency and benchmarked against green definitions and taxonomies with the input of external reviews. This would not occur with other types of mainstream debt finance. **Refinancing also of course makes additional funds available that can be reinvested into new green projects or to finance an issuer's overall transition strategy.** These projects can be in turn refinanced by new green bonds and so on.

On the second, project bonds are a niche market that especially finance infrastructure and where investors take a portion of the completion and/or performance risk of the project itself rather than the balance sheet of a corporate. In 2017, the international project market amounted to only USD 64 billion¹⁵ corresponding to approximately 1% of bond issuances, or less than 50% of the global green bond market in that year. The green bond market is therefore already a much larger market than project bonds and one that successfully combines the refinancing approach of the mainstream bond markets with innovative visibility and benchmarking on green projects.

Nonetheless, the concerns raised lead to legitimate questions on the actual role of green bonds and their contribution to sustainability. **The benefits of green bonds can be summarised as follows:**

Converting bond markets to green: Green bonds have momentum in the international bond markets and are converting increasing number of issuers. This is important because (i) the capital flows being channelled to green projects are now without doubt substantial (USD170-180bn in 2018), (ii) issuers are committing themselves to unprecedented levels of transparency and reporting on their green projects and (iii) are building an investor base that is committed to green investors and has an inherent interest in follow-on green issues. As outlined above, according to recent research conducted by Moody's Investor Services¹⁶, green bond issuances represented more than 2% of global bond issuances in the last two years, rising to 4.4% in the last quarter of 2018. This may still seem a modest number, but it has more than doubled in 2 years. Bringing this back to the European bonds market, where green bonds have made the most progress, issuance represented 5.3%¹⁷ of the total amount of non-government bonds issued in Europe in 2018, whilst in Sweden the share of green bonds of all bonds issued in Swedish krona reached 11%.

Enabling corporate and institutional transition: Green bonds create unprecedented market, and in some case media, visibility on the sustainability projects of both public and private issuers.

¹⁵ Source PFI CA CIB, *Project Bond Focus 2018 – Fundamentals*

¹⁶ Data from: *2019 Global Green Bond Outlook*, Moody's Investor Services, 31 January 2019, exhibit 5 on page 5
<https://www.moody.com/newsandevents/topics/Green-Bonds-007034>

¹⁷ Source CA CIB

The overwhelming majority of these issuers are aligned with the GBP which have been increasing the emphasis on issuers communicating an overall transition strategy to the market and their investors by recommending that issuers position their green projects within their “overarching objectives, strategy, policy and/or processes relating to environmental sustainability”¹⁸. Issuers are subject to intense scrutiny from investors as well as from civil society on this point. At the issuer level, many executives have also testified within the context of regular feedback to the GBP Executive Committee that the process associated with green issuance represents a strong in-house knowledge sharing and awareness building exercise that connects the treasury, business, sustainability, investor relations and reporting functions with the corporate organisation in a way that is seen as an important and unforeseen benefit.

Making green and climate investible: the green bond market has considerably progressed the debate on what is green by facilitating the emergence of both market-based and regulatory definitions of what is green. These include for example the high-level project categories of the GBP, the Climate Bonds Taxonomy¹⁹, and People’s Bank of China Green Bond Catalogue. In parallel, an ecosystem of firms and organisation drawn from the academic, audit, rating and consulting worlds (referred to collectively as “external reviewers”) has developed to provide advisory services on how to interpret and verify green projects. This ecosystem has allowed the markets to invest with much greater confidence in green projects without being held back by the detail of ongoing scientific or academic debates on green definitions. The EC’s plans to develop a Taxonomy integrate and build on the classifications developed for the international green bond market.

Progressing the policy debate on green finance: the green bond market has also provided policy makers an example of a largely market driven and successful initiative addressing green challenges and climate change mitigation. This has stimulated debate on how it may be further supported and how it may inform wider policy initiatives. This is illustrated by the EC’s own plans as reflected by this report and by the work of the EU TEG, as well as the previous report from the EU HLEG. The G20 has also recognised the significance of the emergence of the green bond market both in official statements and through the reports of the G20 Green Finance Study Group²⁰. A number of governments have developed public policies to facilitate the issuance of green bonds. This has been the case in China (government guidelines for green bond issuance in various sector, capital and repo rates incentives), France (official label for green funds), ASEAN countries (definition of an ASEAN Green Bond standard), India (listing disclosure requirements for Green Bonds on the Securities Exchange Board of India). The International Organization for Standardization (ISO) is currently developing a Green Bonds Standard ISO 14030).

2.2 Barriers to Green Bond market development

As discussed earlier, the green bond market has grown steadily in all debt asset classes during recent years and is not faced with any major market dysfunction. The pricing advantage experienced by some issuers and the relatively low liquidity of green bonds in the secondary markets indicates an imbalance between investor demand and insufficient supply from issuers.

Based on discussions with market participants, the TEG GBS has acquired the conviction that this relative lack of supply can be mainly attributed to the difficulty for some potential issuers to

¹⁸ Green Bond Principles June 2018

¹⁹ <https://www.climatebonds.net/standard/taxonomy>

²⁰ G20 GFSG (2016) Green Bonds: country experiences, barriers and options, G20 Green Finance Study Group, Prepared by the OECD, ICMA, CBI, and the Green Finance Committee (GFC) of China Society for Finance and Banking. The lead authors are Ma Jun (People’s Bank of China and GFC), Christopher Kaminker (OECD), Sean Kidney (CBI) and Nicholas Pfaff (ICMA)

reach sufficiently clear views on the relative advantages of green bond issuance versus other financing options and concerns related to potential reputational risks. More specifically, the current barriers to the market's further development can be summarised as follows:

The absence of clear economic benefits for issuers: For a company owning green assets, issuing a green bond implies relatively limited additional external costs compared with a standard bond (usually less than €40k corresponding principally relating to fees paid to the external reviewers) and further internal costs related to the additional effort by issuers teams to manage the green bond process and related reporting requirements. As a benefit, the company usually experience a diversification of their investor base combined with higher demand providing benefits during the execution, which may be evidenced by lower new issue premium, or for larger and/or longer maturity transactions.

The pricing advantage from issuing a green bond, if any, appears to be small to date and not universal. Research in this area is inconclusive. A study by Schiereck (2018) shows that there are no significant price differences between green and similar conventional bonds. The same conclusion is reached from various banks on a selected number of corporate issuers. Another research piece by CBI (2018), Zerbib and Baker (2018) find a moderate green bond pricing advantage for the issuer (few bps). Karpf and Mandel (2017) find a lower green bond yield in secondary markets in comparison to conventional bonds of the same issuer. A recent JRC research²¹ comes to a similar conclusion for primary markets. The pricing advantage is heterogeneous across types of non-governmental issuers.

Issuer concerns with reputational risks and green definitions: Issuers will only proceed with green bonds if they do not create additional risks or liabilities compared to the alternatives. The issuance of green bonds entails choices related to the definition of green projects, to the reporting or to the issuance processes. In a limited number of cases, issuers have experienced reputational issues from negative market comments from media, NGOs, shareholders, etc. As a result, the fear of such adverse publicity for example because a deal is deemed "insufficiently green" has prevented some issuers from tapping the market. Unfortunately, this is particularly true for issuers in economic sectors that are very important for the transition to a low carbon economy, but where the identification of green assets and projects is not straightforward.

Complex and potentially costly external review procedures: There is a wide array of market practices for the external reviews related to green bonds, as well as potential conflicts and quality control issues. As summarised in Chapter 4, the market has seen a broad range of firms including credit rating agencies and non-financial rating agencies, auditing firms, academics, certification bodies, and environmental consulting firms provide external review services, before or after the transactions, and with very diverse approaches. As an example, in the current market functioning, such external reviews may include a consideration on the ESG rating of the issuer (or not), rely on GBP projects categories (or not), may be valid for several transactions (or not), be an ex-ante opinion or an ex-post verification, etc. This large range of approaches, provided by players with very diverse levels of expertise on environmental matters create uncertainties for issuers and investors on the actual value, quality and impact of the external reviews. It can also lead to duplication and increased costs.

Uncertainty on the type of assets and expenses that can be financed: To date green bonds have financed fixed assets, loans backed by such fixed assets, various type of capital

²¹ *The pricing of green bonds*, Serena Fatica Roberto Panzica Michela Rancan (European Commission – Joint Research Centre), EC Conference on Promoting Sustainable Finance Brussels, January 8th, 2019, https://ec.europa.eu/jrc/sites/jrcsh/files/presentation_serena_fatica.pdf

expenditures linked to such green assets, but also various types of operating expenses and subsidies which are sometimes linked to green assets, and sometimes not. Clarification on what can constitute an eligible green use of capital would lift uncertainty and would increase the scope of projects that can be financed in a controlled and legitimate manner.

Unclear expectations on the tracking of proceeds: In some of the early green bonds the management of the green bond proceeds between the time of issuance and full allocation was arranged through a dedicated account or by a process of ring-fencing. Over time, this practice has become less common and the GBP allow for simple “tracking” of equivalent amounts where the issuer must be able to evidence that allocations to eligible green projects are at least equal to the bond proceeds raised. Such tracking is significantly less costly and operationally complex to implement for issuers.

2.3 Underlying Principles of the EU GBS

Green bonds have shown a remarkable capacity to develop and grow while at the same time serving the purpose of driving the awareness of sustainability in the economy and the financial markets at large. The EU Green Bond Standard aims to facilitate this development by further clarifying how economic activities can be combined with positive environmental impacts in a credible and measurable way. This also contributes to the EU’s long-term competitiveness, as well as its economic and environmental resilience in multiple ways. To achieve this, it is important to create a standard that promotes market integrity while building on existing and successful market practice as represented by the GBP and the CBI. Accordingly, the EU GBS should be underpinned by underlying principles that maximise its impact and acceptance in the European and international bond markets, as well as its relevance to all stakeholders.

The EU GBS should be a voluntary standard: For any new transaction, any issuer of a bond or any other capital market debt instrument would have an option to align with the EU GBS or choose to follow other practices. If the EU GBS is followed, this would need to be verified by an EU accredited external reviewer. The verification process and accreditation of independent verifiers are described in chapters 4. The Subgroup expects that, even if only voluntary, the EU GBS would rapidly gain a large market recognition as issuers and investors would naturally push for the adoption of a standard supported by the EU and its implied reliability and integrity.

The rapid adoption of new market practices initially thought to be too ambitious has been a frequent phenomenon in green bond markets. For instance, features such as impact reporting, ex-post verification of allocations, external reviews, CBI certification, etc. were initially considered to be too complex and costly, but they have nevertheless become widespread standards thanks to market emulation.

The EU GBS should be built on market best practices: As mentioned above, the European and international green bond market does not suffer from market dysfunction and benefits from structured and reactive best market practice embodied by the GBP. This best practice is based on transparency and on the combination of guidance on green project categories, proceeds management, reporting and independent advice (referred to as External Reviews). These are applied by the vast majority of issuers and expected by investors, especially in Europe. The Subgroup has therefore decided to use them as a starting point for the EU GBS.

The EU GBS should be both a European and international standard: It is the Subgroup’s recommendation to create a standard that most green bond issuers would be able to comply with over time and that could become an international best practice benchmark. As a result, the EU GBS should be available for any type of issuer globally and could be applied to any type of bond

issued in different forms (listed/unlisted, public/private) and structure (ABS, covered bonds, project bonds, financial sector bonds, corporate bonds), provided the bond complies with all the requirements of the EU GBS.

The EU GBS should be open to existing green bond transactions and to all types of issuers: Current green bond issuers should have the option to align their existing bonds with the EU GBS at their discretion (e.g., depending on the size and remaining maturity of the bond). The standard should be open to corporate issuers, all types of financial institutions as well as sovereign, sub-sovereign or agency issuers. This will enable its early adoption by all willing market players allowing the EU GBS to become an important reference in the market relatively quickly.

3 PROPOSAL FOR AN EU GREEN BOND STANDARD AND ITS IMPLEMENTATION

3.1 Addressing the barriers to market development

The EU GBS and its related recommendations (see section 4 and 5) aim to address the barriers to green bond market development identified in Chapter 2. The table below summarises the barriers identified at this stage and how the EU GBS seeks to address them.

Table 1: EU GBS responses to barriers to green bond market development

Barriers to green bond market development	How the draft EU GBS and related recommendations seek to address these barriers
Absence of clear economic benefits for issuers	The standardisation represented by the EU GBS, and its endorsement by the EC, will open the way for policy-makers to design potential incentives to increase economic benefits for issuers and, ultimately, off-set any additional costs. Potential incentives to support and stimulate market growth, both supply and demand side measures, are described in Section 5. They include a grant-scheme (with a sunset clause) to offset the additional cost of external verification, enhanced disclosure of EU GBS holdings by institutional investors to indirectly stimulate demand, and credit enhancement for non-investment grade issuers.
Issuers concerns with reputational risks and green definitions	The EU GBS builds on the proposed EU taxonomy regulation to clarify green definitions (see section 3.2.1). It also foresees a robust accreditation scheme for external reviewers and a clarification of their role and responsibilities to verify green definitions, aiming to reduce controversies and thus reputational risks. Furthermore, reporting is expanded and standardized to clarify how issuers are expected to report on impact.
Complex and potentially costly procedures for reporting and external review	Standardised verification process with a clear scope of services focusing on the essential components are expected to streamline the verification process, avoid duplication of effort and, ultimately, reduce costs of external reviews. In addition, a grant-scheme (with a sunset clause) is proposed to offset the (initial) additional cost of external verification as described in Section 5.
Uncertainty on the type of assets and expenses that can be financed	The EU GBS defines and broadens the scope of eligible expenditures (see 3.2.1 and section 4 of Annex 1).
Unclear expectations on the tracking of proceeds	The EU GBS integrates the existing concept of “management of proceeds” in the GBP while simplifying it so that it is equivalent amounts allocated to Green Projects that need to be tracked.

The implementation of the EU GBS provides a robust market standard backed by the EC that is a pre-requisite for policy-makers to design potential incentives. Such incentives and

supporting measure can increase economic benefits for issuers and, ultimately, off-set any additional costs.

Our recommendations concerning economic incentives for green bond issuers (see section 5) are designed **firstly to equalise as much as possible issuance costs with mainstream bonds**. The objective is to neutralise costs related to external reviews which could potentially also increase as a result of TEG proposals for post issuance verification (see 3.3.4).

There are also targeted proposals to support non-investment grade issuers, and recommendations for EU GBS holding disclosures for institutional investors designed to increase stakeholder focus and indirectly stimulate buy-side demand. Longer term and more structural proposals are also made in relation to prudential standards and taxation **that could lead in the future to real positive incentives for green bond issuers and investors**.

The TEG proposes to clarify and standardise external review procedures. External reviews will systematically take place both before and after issuance. They are focused on the verification of alignment with the EU GBS which also requires explicit information on the substantive commitments of issuers in relation to impact through a comprehensive Green Bond Framework to be prepared by all issuers (see section 3.3.2 below).

The status of External Reviewers will be formalised through a proposed accreditation scheme that could lead to official sector supervision of these service providers after a voluntary accreditation that will be put in place as soon as practicable by market participants and stakeholders with the support of the EC. This scheme is designed to bring further transparency to the process and content of external reviews (see section 4).

Reputational risk and green definitions will be addressed through the link with the EU Taxonomy. Issuers and investors will be able to refer to a common definition of green and sustainability thanks to the common reference provided by the Taxonomy (see section 3.3.1). This will significantly mitigate reputational risk in this area and alleviate market concerns about “greenwashing” risk. The EU GBS also takes into account that the Taxonomy provides guidance at the economic activity rather than at a project level and that it will also be rolled out over time. Specific recommendations on how the EU GBS will work with the Taxonomy in these circumstances are provided (see section 3.3.1).

The EU GBS expands the scope of green assets and expenditures that can be financed. Operating expenditures and working capital, in addition to capital expenditure, can be included if they are closely related to eligible green assets. Green expenditures from sovereigns and public entities are also explicitly incorporated.

Finally, the **advice on management of proceeds aligns with most recent market practice on tracking by equivalent amounts**. This should mitigate remaining anxieties of issuers especially in the sovereign space about requirements for potentially complex tracking procedures that are can be incompatible with the legal parameters of government finance and national budgets.

3.2 Proposed draft of the EU GBS

The TEG has prepared a draft of the EU GBS attached in Annex 1. The EU GBS aims to address the issues identified above and provide the EC with a text in a format that can immediately serve as a voluntary standard or its basis. This section of the report is designed as a commentary on the draft EU GBS, please refer to Annex 1 for a complete picture of what is being proposed.

The draft is directly related both to the “[Informal Supplementary Document on Green Bonds](#)” published by the EC’s High-Level Expert Group (HLEG) on Sustainable Finance in January 2018 and to the prevailing best practices market standard represented by the GBP.

The draft EU GBS is composed of 4 sections (i) Scope, (ii) Objective, (iii) Definition and (iv) Guidance on the Components (including, Green Projects, Green Bond Framework, Reporting and Verification).

The first 2 sections are short and concise, but nonetheless convey essential information concerning the high-level ambition of the EU GBS in line with its underlying principles described above. Sections one and two confirm that the EU GBS (i) is voluntary and draws on market practice as represented by the GBP, (ii) it aims to enhance “transparency, integrity, consistency and comparability” of EU Green Bonds; and (iii) the ultimate goal is to increase “the flow of finance to green and sustainable projects”.

Section 3 of the draft provides a clear definition of an EU Green Bond as any type of listed or unlisted bond or capital market debt instrument issued by a European or international issuer, by listing three requirements: (i) the issuer’s “Green Bond Framework” needs to explicitly affirm the alignment with the EU GBS, (ii) the proceeds will finance or re-finance “Green Projects” and (iii) the alignment of the EU GBS is verified by “an accredited External Reviewer”. Both the reference to a “Green Bond Framework” and to accreditation of the External Reviewer represent innovations compared to current market practice. These are explained in further detail below with the commentary on the components of the EU GBS.

Section 4 of the draft EU GBS echoes existing market practice while introducing innovations and being more granular in many of its recommendations. It also establishes the critical link with the EU Taxonomy, as well as with other recommendations in this report namely accreditation of external verifiers and more comprehensive reporting from EU GBS issuers.

3.3 Core components of the EU GBS

3.3.1 Green Projects

Detailed guidance is provided on the interpretation of the EU Taxonomy: Green Projects are required to be aligned with the EU Taxonomy while acknowledging that it will be rolled out progressively over time and has been designed to identify a broader spectrum of sustainable activities than only assets.

Indeed, the proposed draft taxonomy regulation, adopted by the EC in May 2018 includes a roadmap for the taxonomy to be finalised, step-by step through a series of delegated acts scheduled to be published between now and 31 December 2022. It also specifies explicitly that “*the taxonomy will only be used once it is stable and mature, in order to avoid disproportionate costs on financial market participants. The aim of these safeguards is that the use of the*

taxonomy will only come at the end of a consultative process with stakeholders which has created buy-in and a good understanding of the concept [...] the 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 application²².

For the EU GBS it is therefore assumed that there will be a degree of interpretation necessary for the market participants, and especially issuers and verifiers, to implement the Taxonomy and its technical criteria. This is consistent with the philosophy of a voluntary standard. The assumption is also made that the accreditation process of the verifiers will be robust and will allow for a dialogue on the interpretation of the Taxonomy during a transition phase.

This dialogue will, among other things, take into account that the proposed taxonomy regulation incorporates high-level ‘fundamental principles’ i.e. that projects must “substantially contribute” to one or more of the EU’s environmental objectives (Article 5-11), while not significantly harming any of the other objectives (Article 12) and complying with the minimum social safeguards represented by the principles and rights set out in the eight conventions identified in the International Labour Organisation’s declaration on Fundamental Rights and Principles at Work (Article 13). Moreover, it also including “technical screening criteria” on sectors considered sustainable, metrics and related thresholds (Article 14).

More specifically, issuers and External Reviewers will look to the fundamentals of the Taxonomy to verify the alignment of Green Projects in the following circumstances:

- While the Taxonomy is not yet in force;
- When technical criteria are not yet available;
- In “exceptional cases”, during the transition period until the taxonomy is fully available, when technical criteria are considered “not directly applicable” by the issuer because of the “innovative nature, the complexity, and/or the location” of the Green Projects.

It is important to underline that the flexibility provided in “exceptional cases” is intended to be interpreted narrowly and in situations where there are genuine issues with the application of the technical screening criteria. It has been introduced to recognise that any classification system such as the Taxonomy may not be able to reflect the pace of technical innovation, as well as anticipate the full complexity of economic and corporate activities or all the specificities of national or regional circumstances. In these situations, in addition to the fundamentals of the Taxonomy, issuers and External Reviewers can also look to developments in other authoritative taxonomies and classifications. The possibility for the future EU Platform to give guidance in these circumstances is also under discussion.

The scope of eligible expenditures is defined and broadened: Existing market practice does not provide explicit guidance on how proceeds should be applied when differentiating between capital and operational expenditures (capex and opex), working capital, public expenditures, as well as intangible and intangible assets. Section 4 of the draft provides greater clarity and specifies that Green Projects can include:

²² Part 2, Proposal for a *REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL* on the establishment of a framework to facilitate sustainable investment, COM(2018) 353 final 2018/0178 (COD), 24 May 2018.
<https://ec.europa.eu/transparency/regdoc/rep/1/2018/EN/COM-2018-353-F1-EN-MAIN-PART-1.PDF>

1. “eligible green assets (including physical assets and financial assets such as loans), as well as the share of the working capital that can reasonably be attributed to their operation, and, for the avoidance of doubt, including potentially both tangible and intangible assets;
2. eligible green capital expenditures;
3. eligible green operating expenditures related to improving or maintaining the value of eligible assets;
4. eligible green expenditures for sovereigns, sub-sovereigns and public agencies.”

These clarifications may prove valuable to issuers as they widen the scope of allowable use of proceeds in a manner that is both consistent with how financial flows actually fund and facilitate projects while also preserving the integrity of the use of proceeds. It also creates a specific category for sovereign and public issuers reflecting their growing importance as issuers in the green bond market.

3.3.2 *Green Bond Framework (GBF)*

The role of the Green Bond Framework is formalised. Many issuers in the green bond market develop “frameworks” with the help of their underwriters to provide information especially on their future issues and on the type of projects that will be financed, but there is no unified practice. Section 4 of the standard expands and formalises what needs to be included in a “Green Bond Framework” (GBF) to make it a comprehensive document for the information of investors and other market participants. The draft standard therefore requires the GBF to include:

1. “The environmental objectives of the EU Green Bond and how the issuer’s strategy aligns with such objectives, as well as their rationale for issuing.”
2. “The process by which the issuer determines how Green Projects are in line with the EU Taxonomy, and, if applicable, technical screening criteria”
3. “A description of the Green Projects to be financed or refinanced by the EU Green Bond. In case that the Green Projects are not identified at the date of issuance, the issuer shall describe, where available the type, sectors and environmental objectives of the potential Green Projects.”
4. “The process for linking the issuer’s lending or investment operations for Green Projects to the EU Green Bond issued. The issuer shall track the amount allocated to Green Projects until such amount equals the net proceeds in an appropriate manner and documented through a formal internal process;”
5. “A description of the Reporting including information on the methodology and assumptions to be used for the calculation of key impact metrics related to the EU Taxonomy and, if available, on any other additional impact metrics”

The GBF thus becomes a document covering issuer alignment with the Taxonomy, project selection and future reporting including impact. It also integrates the existing concept of “management of proceeds” in the GBF while simplifying it so that it is equivalent amounts allocated to Green Projects that need to be tracked. This reflects the evolution of market practice especially with respect to the constraints faced historically for example by corporate and public issuers when considering the more onerous practice of actually segregating bond proceeds in order to apply them directly to Green Projects.

3.3.3 Reporting

Reporting is expanded and standardised. As with the other components, the requirements of the proposed EU GBS are more specific than current market practice. Reporting covers among other:

- A statement of compliance with the EU GBS
- A classification of projects and allocated amounts according to the EU Taxonomy or to EU Environmental Objectives
- A breakdown of Green Projects by the nature of what is being financed (assets, capital expenditures, operating expenditures, etc.)
- The regional distribution of Green Projects
- Information about the projects' environmental impacts
- The Green Bond Ratio²³.

There is also a requirement for impact reporting in line with the commitment and methodology described in the Issuer's GBF. Recommended draft reporting formats are further included, while leaving issuers the flexibility to adapt them as may be necessary.

3.3.4 Verification

Verification becomes mandatory and requires the accreditation of External Reviewers. As mentioned above, the draft EU GBS is a standard requiring verification which aligns it with leading best market practice. This is further exemplified by both pre-issuance verification focused on the GBF and post issuance verification covering the alignment of actual use of proceeds, as well as their actual or estimated impact.

Verification will only be provided by external verifiers that have been formally accredited. The high-level criteria of the accreditation are listed in the draft and reference among other codes of conduct, professional qualification, and the application of standardised procedures. This is covered in extenso in chapter 4.

In line with guidance on external reviews developed by the Green Bond Principles and additional guidance and directives for verification (so-called 'conformity assessments') provided by the international Standards Organisation (ISO)^[ii], the draft GBS uses the generic term 'external review' to refer to two separate steps in the verification process of the EU GBS: an initial (ex-ante) verification of the Green Bond Framework and a (ex-post) verification of the use of proceeds and impact reporting. Providers of external review are referred to as (accredited) 'external review providers' or 'verifiers'.

3.4 Implementation of the EU GBS

In line with the recommendation of the Subgroup on the voluntary nature of the EU GBS, it is proposed the EC adopt a recommendation, in the form of a Communication or any other type of voluntary, non-binding EU act, setting out requirements that issuers, intermediaries or other third parties involved in the issuance or verification process would meet on a voluntary basis. The

²³ The Green Bond Ratio, represents the 'total amount of green bonds outstanding divided by the total amount of debt outstanding at the end of the reporting period'. More information is provided in the recent TEG report on climate-related disclosures, page 32: https://ec.europa.eu/info/publications/190110-sustainable-finance-teg-report-climate-related-disclosures_en and the consultation document on the update of the Non-Binding Guidelines on Non-Financial Reporting Guidelines, https://ec.europa.eu/info/consultations/finance-2019-non-financial-reporting-guidelines_en, published by the EC on 20 February 2019, section 5, page 29

Communication would incorporate a finalised version of the proposed draft attached in Annex 1.

The EC should also implement as much as practicable accompanying priority incentives to support the market adoption of the EU GBS. Such potential incentives are described in chapter 5.

The Subgroup further recommends that the EC, for example through the Sustainability Platform, monitor the rate of adoption in the market and impact of the EU GBS²⁴. After a period of up to 3 years, the EC should then evaluate if the standard has met its goals especially in increasing market size while channelling financial flows towards climate change mitigation and other environmental objectives in the EU taxonomy while promoting market transparency and integrity.

Recommendation #01: The TEG proposes that the EC adopts a 'recommendation' to support the implementation of the EU green bonds without imposing a mandatory legal framework while accompanying it with appropriate incentives as described in Chapter 5. This recommendation should be accompanied by the monitoring of market developments to evaluate the implementation of the EU GBS.

Thereafter, the EU could consider what other appropriate measures may need to be taken to further support the implementation of the EU GBS including if relevant the possible recourse to legislation (through a Regulation or Directive)

Recommendation #02: The TEG recommends that the EC conduct a review of the take up and impact of the EU GBS after an estimated period of 3 years. The EC would then consider further appropriate measures including if relevant the possible recourse to legislation in support of the implementation of the EU GBS.

4 AN ACCREDITATION REGIME FOR EXTERNAL VERIFIERS OF THE EU GREEN BOND STANDARD

4.1 External reviews are common market practice among European issuers

External reviews are a commonly used umbrella term that covers a wide spectrum of services from environmental consultancy, to verification against a standard or audits on use of proceeds. The Guidelines for external reviews²⁴ published by the ICMA/Green Bond Principles (GBP) in June 2018 recognize four major categories of external reviews: (1) second party opinions ('SPO'), (2) verification, (3) certification, and (4) green/social/ sustainability ratings.

External reviews have become common market practice in the EU green bond market²⁵. Indeed, recent research conducted by Luxembourg Stock Exchange (LuxSE)²⁶ for the TEG has shown that more than 85% of issuers use some form of pre-issuance review (also referred to as

²⁴ Guidelines for Green, Social and Sustainability Bonds External Reviews, ICMA/Green Bond Principles, June 2018, <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2018/Guidelines-for-Green-Social-and-Sustainability-Bonds-External-Reviews---June-2018-140618-WEB.pdf>

²⁵ Natixis Green Bonds 3:0, January 2017

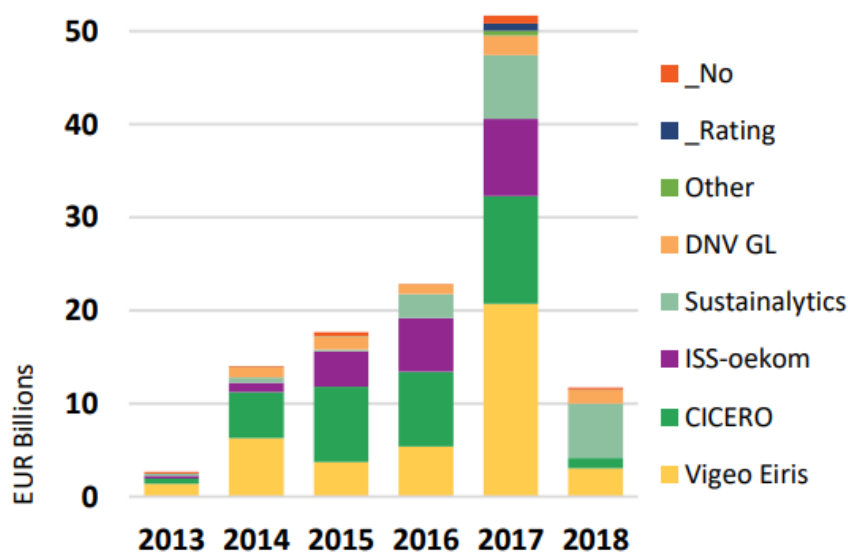
²⁶ Luxembourg Green Exchange – report on the analysis of green bond external reviews and reporting – European Issuers, draft paper prepared for EC TEG, 11 September 2018 (unpublished)

‘validation’ in ISO standards²⁷ to confirm that requirement for specific intended use are fulfilled), out of which almost all take the form of external reviews (98%).

Third-party verification, post issuance can be perceived as costly, as well as of variable quality and added value to the issuer and/or investor, it can strengthen the credibility of the information by the issuer, protect the integrity of the market and reduce the risk of green washing. Another analysis conducted by Natixis²⁸ of 97 global issuer and reporting profiles showed that 64% of issuers had provided some sort of third-party opinion and impact measurements were included in the scope of the external verification for 27% percent. Most audit/verification statements (85%) were deemed to meet (or exceed) related audit market practices (i.e., limited assurance as per IFAC/ISAE 3000). According to recent research conducted by the Climate Bonds Initiative (CBI) the external review market is dominated by a relatively small group of mainly European service providers, which currently hold more than 90% of the external review market (see chart below).

Figure 3: Percentage of issued green bonds with an external review

Over 98% of issuance has external review



Source: *The Green Bond Market in Europe*, CBI, June 2018. Market share in terms of value of outstanding green bonds by European issuers.

The current external review market can be divided into four types of organisations: (1) non-financial rating agencies specialised in second-party opinions (Vigéo-Eiris, Sustainalytics, ISS-oekom and the research organisation CICERO; (2) big-four audit firms (Deloitte, KPMG, PwC, EY) providing mostly post-issuance verification, so-called ‘assurance’ services; (3) Credit Rating Agencies (Moody’s; S&P Global Ratings; Fitch as well as, more recently Beyond Ratings) and (4) Global Technical Inspection and certification bodies (e.g., DNV-GL, Bureau Veritas, TÜV, etc.).

²⁷ The ISO definition of the term “validation” is available online: <https://www.iso.org/obp/ui/#iso:std:iso:9000:ed-4:v1:en>

²⁸ Natixis Green Bonds 4.0, January 2018, page 46

Each of the four types of service providers that are currently active on the market can offer relevant skills and expertise for the future verification/certification of the EU GBS.

4.2 The case for an accreditation regime for external reviewers

According to research conducted by various market observers^{29/30} the external review market is facing several challenges including³¹:

- relatively high(er) transaction costs for issuers, potentially limiting scaling of the market, if not offset by a pricing advantage³²;
- lack of independence resulting in perceived or actual conflicts of interest;
- limited disclosure of environmental performance criteria;
- time-consuming and resource intensive process to develop robust sector-specific criteria for certification schemes;
- ambitious certification standards might be difficult to spread
- post-issuance assurance statements do not systematically cover the environmental impacts of the projects funded by the bond;
- post-issuance verification can give rise to confidential price sensitive information that must be managed with due consideration (market sensitivity, legal and regulatory implications);

The GBP have taken a number of initiatives to promote the transparency and integrity of the external review market. Standardised templates for external reviews have been available since 2016 with their recommended public disclosure on a centralised online database hosted by ICMA. The *Guidelines for external reviews*³³ published by ICMA/Green Bond Principles in June 2018 were designed as a further initiative in support of market integrity. Among others, the Guidelines address the potential for conflicts, reference relevant ethical and professional standards and provide guidance on the process and content of external reviews.

However, these guidelines do not provide specific and standardized guidance on the nature and the extent of the procedures to be conducted for external reviews, nor do they spell out in detail the content of the reviewer's report or statement. As a result, there prevails, for example, some uncertainty in the market about the added value of Second Party Opinions (SPOs) and the language and terms used in review reports, opinions or statements

The TEG recommends therefore that verification programmes for the EU GBS shall be standardized and that external reviewers shall be accredited. This is in line with the High-Level Expert Group (HLEG) on Sustainable Finance, which advocated for the development of “...*accreditation requirements for external reviewers*”.

²⁹ G20 GFSG (2016) Green Bonds: country experiences, barriers and options, G20 Green Finance Study Group, Prepared by the OECD, ICMA, CBI, and the Green Finance Committee (GFC) of China Society for Finance and Banking. The lead authors are Ma Jun (People's Bank of China and GFC), Christopher Kaminker (OECD), Sean Kidney (CBI) and Nicholas Pfaff (ICMA)

http://unepinquiry.org/wpcontent/uploads/2016/09/6_Green_Bonds_Country_Experiences_Barriers_and_Options.pdf

³⁰ *Green bonds – a practitioner's roundtable to guide the development of effective & credible frameworks for external reviews* (WWF/EIB/I4CE, June 2017), G20 study Group (2017)

³¹ Adapted from: *Green Bonds: what contribution to the Paris Agreement and how to maximize it?* (see table 6 on page 10).

³² For example, for a 500 million euro benchmark size bond issuance, a price-advantage of 1bts at issuance would be equivalent of a 50 000 euros cost saving, largely off-setting the average cost of external reviews.

³³ Guidelines for Green, Social and Sustainability Bonds External Reviews, ICMA/Green Bond Principles, June 2018, <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2018/Guidelines-for-Green-Social-and-Sustainability-Bonds-External-Reviews---June-2018-140618-WEB.pdf>

4.3 Recommended major components and criteria for a future accreditation of EU GBS verifiers

The overarching objective of the future regime for accreditation and supervision of external review providers is to promote the development of the European green bond market by improving the quality and the robustness of external review, verification/certification services through standardisation and harmonisation of existing practices for the EU GBS, thus enhancing investor confidence.

It should also create a level-playing field for external review service providers and enhance their comparability in the market so as to provide a robust model for the broader enabling ecosystem of external reviewers for green finance in Europe, and that could be relevant for financial instruments beyond green bonds, such as green loans and private placements.

The TEG has therefore reviewed a number of references for rules and processes that can apply to the verification and/or certification of the EU GBS and related accreditation criteria. Most immediately relevant are the requirements for approved verifiers developed by the Climate Bonds Initiatives and the rules being elaborated by ISO in relation to its own work on a Green Bond Standard³⁴, –which are expected to be based on ISO 17029³⁵.

The table on the following page summarizes the key components of the most important reference schemes that have guided the development of accreditation criteria for verifiers under the EU-GBS to date. Moreover, the International Alliance of Sustainability Standards (ISEAL) has also defined codes of good practice for assurance frameworks³⁶.

4.4 Four options for accreditation and supervision have been analysed

The TEG has analysed four different options for improved oversight and supervision of external review providers through accreditation to contrast and compare their respective benefits and drawbacks. These four options include:

- 1. A centralised regime for authorisation and supervision by ESMA**, in cooperation with the future EC Platform on Sustainable Finance. This option would need to be implemented through a legislative framework (i.e., either through amendments of existing regulation or dedicated regulation), as ESMA currently holds no competence in this area. The overall aim of a centralised regime is to have in place one competent body for the authorisation process and to ensure a fully harmonised supervision across all Member States. Depending on the choice of the legal instrument, the completion of the legislative process would be very time consuming (2-3 years) and would therefore require a transition regime to be put in place in the short term (see option 4 below).
- 2. A decentralised regime, involving national competent bodies (national regulators, national eco-labelling authorities) in EU Member States** on a harmonised basis, possibly coordinated by ESMA in cooperation with or with or without other EU institutions (e.g., European Environment Agency, European Banking Authority,

³⁴ <https://www.iso.org/standard/75559.html>, *CD ISO 14030 Green Bonds*, Committee draft submitted to ISO member organisations in October 2018.

³⁵ DIS ISO/IEC 17029, *Conformity Assessment — General principles and requirements for validation and verification bodies*. Draft international standard submitted for vote and comments to ISO member organisation in December 2018.

³⁶ Assuring Compliance with Social and Environmental Standards, Code of Good Practice, ISEAL, March 2018: https://www.isealliance.org/sites/default/files/resource/2018-03/ISEAL_Assurance_Code_Version_1.0.pdf

European Central Bank). As for option 1, such a regime would also require a legislative framework, which would take 2-3 years to be completed by the EU legislative process.

Table 2: Key components currently being considered as accreditation criteria

Item	Climate Bonds Initiative's approved verifier scheme ³⁷	Green Bond Principles (GBP)	International Standards Organisation (ISO)	ESMA regulation of Credit Rating Agencies
Professional codes of conduct related to business ethics, including conflicts of interest and independence	Reference to ISAE 3000 and ISEAL codes of good practices.	General guidance including external reviewer's credentials, statement of independence, and conflict-of-interest policy.	General principle of impartiality and mechanisms for oversight of impartiality as well as very detailed requirements.	See Article 6 "Independence and Avoidance of Conflicts of Interest of CRA Regulation" ³⁸ . See also Annex I Section A "Organisational Requirements", Annex I Section B "Operational Requirements".
Professional minimum qualifications and quality assurance and control.	The verification team must have the relevant experience to carry out the scope of the engagement and must be listed in the terms of the verification engagement.	General guidance including external reviewer's credentials.	Very detailed requirement including structural and resources requirements (personnel, competence of personnel), outsourcing, etc.	See Article 7 "Rating Analysts, employees and other persons involved in the issuing of credit ratings", See Annex I Section C "Rules on rating analysts and other persons directly involved in credit rating activities".
Standardised procedures for external reviews.	Detailed Guidance for Verifiers (version 1.0, January 2017).	General principles (objective, scope, analytical approach, and/or methodologies).	Detailed verification programme described in Draft international Standard DIS ISO 17029 and Committee Draft CD ISO 14030(3).	According to technical standards developed by ESMA (<i>further research required</i>).
Scheme owner / operator.	Climate Bonds Initiative, a UK-based Charity	Green Bond Principles Executive Committee, a committee elected by its members (convened by ICMA).	Verification body (as defined in ISO 17029).	See Article 8 "Methodologies, models and key rating assumptions."
Enforcement mechanisms/sanctions.	Contractual arrangement with approved verifier (" Verifier Agreement ").	n/a	Depending on jurisdiction. Limited (peer review by International Accreditation Forum)	ESMA authorisation & supervision ³⁹

³⁷ <https://www.climatebonds.net/certification/approved-verifiers>

³⁸ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02009R1060-20150621>

³⁹ The following legal requirements apply in these areas under CRAR: Article 14 "Requirements for Registration", Article 15 "Application for Registration" as well as Articles 16 and 17, 18 and 19. ESMA has issued technical standards which set out in more detail the information to be submitted as part of the registration process Delegated Regulation EU No 449/2012 on information for registration and certification of credit rating agencies: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1422266306513&uri=CELEX:32012R0449>

On enforcement/sanctions see also Annex III of CRAR for list of infringements.

3. **Do nothing, i.e., status quo and/or de-facto harmonisation with ISO 14030.** In the case that no European accreditation scheme is developed by the EC with advice from TEG, the absence of regulatory action is likely to result in status-quo (i.e., no accreditation/supervision). It might also lead to voluntary adoption by the market of the future accreditation requirements currently being developed for the international standard ISO 14030(3), building on the international draft standard ISO DIS 17029 on conformity assessments (CASCO). The likely result will be a fully decentralised approach to accreditation implemented through national accreditation organisations across EU Member States. The resulting lack of harmonisation could result in market fragmentation that could hamper market development.
4. **Market-based regime with supervisory participation,** in the form of an interim Accreditation Committee (AC) convened by a market-based initiative in coordination with the TEG with the support of the EC; and – at a later stage – the future EU Sustainability platform. Such a regime would be drawing on existing and emerging market-practice and would involve competent public and private institutions and other stakeholders. It could be set up, ad-hoc, as a transition or more durable regime, which could be operational very quickly (i.e., in 2019). It would draw on the collective experience and expertise of the participating organisations, including the ‘approved verifier scheme’ operated by the Climate Bonds Initiative, the Guidelines for External Reviews published by the GBP, the verification process currently being developed under ISO 14030 and accreditation schemes operated for other sustainability standards (i.e., ISEAL). Such an approach could be envisaged to operate as an interim solution for the transition period until completion of the legislative process and full development of all components of the EU taxonomy by the end of 2022.

4.5 Recommendation for an ESMA-led centralised accreditation regime for external verifiers

After careful consideration of the benefits and drawbacks of each of the four options described above, the TEG is of the opinion that a centralised approach building on ESMA’s core competences seems justified. ESMA can provide a unified approach, ensure a level-playing field, and already plays a similar role for the Credit Rating Agencies (CRAs) that could potentially yield synergies with existing processes and procedures (e.g., application of market abuse principles⁴⁰), in particular given the fact that even under a scenario that assumes strong and continued growth in the green bond market the number of external reviewers to be accredited is expected to be relatively small (currently 6 external review providers account for more than ¾ of the market⁴¹).

Moreover, ESMA envisages environmental issues as becoming part of its mandate going forward. For example, ESMA has been asked to build capacity on sustainability for other purposes (MiFID2; fiduciary duty). However, additional green expertise and capacity within ESMA will be required and needs should be carefully assessed and quantified.

However, several potential challenges and drawbacks have been identified at this stage and need to be investigated by the TEG in further detail for the final report. They include (but are not limited to):

⁴⁰ <https://www.esma.europa.eu/regulation/trading/market-abuse>

⁴¹ See also analysis provided in Annex 1 and *CICERO Milestones 2018. A practitioner's perspective on the Green Bond Market*, November 2018, page 4, <https://www.cicero.oslo.no/en/publications/external/5887>

- Potential barriers for smaller providers and (relatively) high costs associated with ESMA supervision to be borne by verifiers and which are likely to be transferred to issuers, thus increasing transaction costs;
- obligation for verifiers to abide by market-abuse principles and potentially other requirements;
- challenges to achieve adoption by co-legislators in the short-term, which would require the interim solution (Option 4) to operate for a relatively long period.

As a result, the TEG proposes to proceed with the development of a centralised approach in further detail over the coming months. This would require exploring, in close cooperation with ESMA and the EC, how such an authorisation and supervision regime, or potentially other alternative options such as ESMA registration inspired for certification under the Simple and Transparent and Standardized (STS) regulation⁴² could be implemented by ESMA.

Recommendation #03. The TEG recommends that the EC considers developing a legislative proposal to set up a centralised regime for authorisation and supervision of external verifiers to be potentially operated by ESMA, in cooperation with the future EC Platform on Sustainable Finance. The TEG will further develop this proposal in close consultation with ESMA and the EC.

4.6 A market-based initiative to set up a transition regime for accreditation until the legislative process is completed

It is already clear that a new EC legislative proposal will be required to expand ESMA’s current mandate for the purpose considered above. The TEG has therefore started to explore how a market-based and/or mixed approaches could be developed for the transition period between now and the moment in time when the proposed taxonomy regulation would be adopted and enters into force, the Taxonomy is fully developed for all environmental objectives and implemented through EC delegated acts (i.e., at the earliest in December 2022) and the new legislative process to expand ESMA’s mandate (as proposed in the previous section) is completed. An outline of this voluntary accreditation scheme is provided in Annex 2.

Recommendation #04. TEG also recommends that a market-based initiative, in close cooperation with the EC, sets up as an interim Accreditation Committee, as soon as practicable, to oversee and operate a transition regime. The TEG will further develop this approach over the coming months.

5 POTENTIAL INCENTIVES TO SUPPORT THE EU GREEN BOND MARKET

This chapter discusses potential incentives scheme that could be implemented and that could contribute to establishing a ‘level-playing field’ for green bond issuers compared to issuers of conventional bonds as well as specific incentives designed to further develop the market. Such incentives schemes should be geared exclusively toward bonds that comply with the requirements of the EU GBS.

⁴² <https://www.esma.europa.eu/press-news/esma-news/esma-defines-disclosure-standards-under-securitisation-regulation>

We have identified the incentives into several areas and have grouped them into two separate categories: 1) incentives which can be implemented relatively easily and in a cost effective manner for the European taxpayer 2) incentives that are more complex to implement because they require other authorities' agreement, different competencies in play and/or can have very different timelines.

5.1 Incentives that could be implemented in the short term

5.1.1 Encourage to investors to increase their holdings in EU Green Bonds

Investors, in particular European institutional investors such as asset managers, pension funds and insurance undertakings as well as banks in their function as underwriter play an essential role in developing and promoting best practices and standards.

They have done so successfully in the past (and continue to do so) through, *inter alia*, active participation in the design of the Green Bond Principles, the development of the Climate Bonds Standard and, more recently the International Standards Organisation ISO 14030.

Some investors, including many European institutional investors, have also actively contributed to the promotion of standards by making their expectations known through public statements by investor coalitions, such as, for example, the *Green Bond Pledge*⁴³, or the *Statement of Investor Expectations for the Green bonds for the green bond market*⁴⁴.

This is why the TEG believes that investors should also consider use the requirements of the EU-GBS in their green fixed-income investment strategy and portfolios and communicate their expectations clearly and actively through dialogue with green bond issuers and/or in public statements. Investment banks can play a critical role in promoting the EU green bond standard when assisting clients as lead advisors and/or underwriters.

Recommendation #05: Investors, in particular institutional investors are encouraged to adopt the requirements of the EU GBS when designing their green fixed-income investment strategies and to communicate their commitment and their expectations actively to green bond issuers as well as to underwriters.

5.1.2 Disclosure of EU GBS compliant green bond holdings by European institutional investors

Experience in France with mandatory climate-related disclosures by institutional investors under Article 173(vi) of the French Energy Transition for Green Growth Act adopted in 2017 has demonstrated how increasing transparency can play a significant role in triggering demand and spur growth in the European green bond markets.

Mandatory disclosures for institutional investors, even under a flexible approach, emphasising pilot testing as implemented in France under Article 173(vi) where investors are required to comply with these new requirements or explain why they do not apply to them (approach called "comply or explain"), can provide an important tool to provide additional credibility to the EU Green Bond market that could have a major impact on the demand.

⁴³ <https://www.greenbondpledge.com/>

⁴⁴ http://www.emergingmarketsdialogue.org/wp-content/uploads/2018/02/Statement_of_Investor_Expectations_for_Green_Bonds.pdf

Recommendation #06: Adopt an ambitious disclosures regime for institutional investors. Within the context of the revision of disclosures for institutional investors currently underway the TEG recommends that the EC puts in place an ambitious “comply or explain” type regime for periodic disclosure of EU Green Bond holdings by institutional investors such as asset managers, pension funds and insurance undertakings. Underwriters are also encouraged to disclose the portion of GBS underwritten versus other green bonds.

Key performance metrics for this purpose, in particular the Green Finance and Green Bond Ratios, recommended as a type 2 disclosure in the non-binding guidelines of the Non-Financial Reporting Directive for asset managers and asset owners, are provided in the sector specific guidance for banks and insurance undertakings. These have been proposed by the TEG in its recent *Report on Climate-related Disclosures*⁴⁵, published in January 2019 and the proposed draft revision of the *Non-Binding Guidelines on Non-Financial Reporting*⁴⁶, published by the EC for consultation in February 2019.

More specifically for the public sector, the EC should encourage all types of public sector investors in the European Union to disclose their green bond holdings periodically at least once a year, either directly for European Institutions, or indirectly and in close cooperation with EU Member States. Last but not least the European members of the Network for Greening the Financial System (NGFS) should encourage the members of the NGFS to adopt similar approaches.

5.1.3 Encourage Central Banks and Supervisors to lead by example to scale up green finance

Central banks and supervisors can play a central role in facilitating the mainstreaming of green finance. The Central Banks and Supervisors Network for Greening the Financial System (NGFS⁴⁷), for example, is currently looking into ways how these institutions can “lead by example” in integrating climate-related criteria in a growing number of their operations, including the management of own funds, pension funds and official reserves. Supervisors can support this by incorporating the ESG risk factors into their supervisory methodologies and, as part of supervisory dialogue, to assess the processes and mechanism used by the institutions to evaluate climate related risks on prudential risks.

The EU GBS working group welcomes the network’s initiative and recommends that the European System of Central Banks (ESCB), i.e., the European Central Bank (ECB) and the national central banks in the EU Member States to consider integrating sustainability criteria in their portfolio management frameworks for own funds, pension funds and official reserves. Under that remit, ESCB member banks could consider supporting the EU green bond market through further investing in EU Green Bonds.

More specifically, due to its (monetary) policy portfolios, ECB, is already one of the world’s largest investors in green bonds: under both its public sector and corporate sector purchase

⁴⁵ *Report on climate-related disclosures*, EC Technical Expert Group on Sustainable Finance, January 2019, https://ec.europa.eu/info/publications/190110-sustainable-finance-teg-report-climate-related-disclosures_en

⁴⁶ *Consultation document on the update of the Non-Binding Guidelines on Non-Financial Reporting*, https://ec.europa.eu/info/consultations/finance-2019-non-financial-reporting-guidelines_en, published on 20 February 2019, section 5, page 29

⁴⁷ <https://www.banque-france.fr/en/financial-stability/international-role/network-greening-financial-system>

programmes, the ECB has already purchased ‘green bond’ for a total amount of approximately 18bn euros⁴⁸.

Several (academic) authors have studied the interactions between monetary policy and climate change⁴⁹.

The ECB is also already considering the links between monetary policy and climate change: In a recent speech at a conference organised by the German Bundesbank in November 2018 in Berlin, Benoit Coeuré, Member of the Executive Board of the ECB, had argued that “[...] *the ECB, acting within its mandate, can – and should – actively support the transition to a low carbon economy, in two main ways: first, by helping to define the rules of the game and, second, by acting accordingly, without prejudice to price stability*”⁵⁰

Within its core mandate to achieve price stability and without prejudice to the principle of market neutrality, the ECB could consider promoting greening the financial system by expressing and implementing a preference for EU Green Bonds when purchasing green bonds.

Recommendation #07. The TEG recommends that the European Central Bank, without prejudice to the principle of market neutrality, considers promoting greening the financial system in expressing and implementing a preference for EU Green Bonds when purchasing green bonds.

5.1.4 Encourage banks to find ways to enhance pricing of green assets

When providing loans to finance green assets, some financial institutions have started to apply positive factors on a voluntary basis⁵¹. Such a calibration would aim at passing a better pricing than conventional financial instruments to the corporates.

5.1.5 Provide credit enhancement for non-investment grade green bond issuers

Another, mechanism may be to improve the risk profile of green bonds through credit enhancement by partial public guarantees schemes, in particular for non-investment grade green bonds. Such public credit guarantee could be provided by the European Institutions currently

⁴⁸ According to a recent ECB publication, the ECB currently hold around 24% of the eligible “green” universe, estimated to amount to some €48 billion. Under the latter, we hold close to 20% of the eligible “green” corporate bond universe, which currently has an outstanding volume of €31 billion euros. Under both programmes, the share hold in “green” eligible bonds mirrors by the EC, by and large, the share of our holdings of the entire eligible universe. see https://www.ecb.europa.eu/pub/economic-bulletin/focus/2018/html/ecb.ebbox201807_01.en.html

⁴⁹ See for example: *Why monetary policy should go green!*, Alexander Barkawi, CEP, May 18 2017, see: <https://ftalphaville.ft.com/2017/05/18/2189013/guest-post-why-monetary-policy-should-go-green/>
The climate impact of quantitative easing, Sini Matikainen, Emanuele Campiglio & Dimitri Zenghelis, Policy Paper, May 2017, Grantham Research Institute on climate Change and the Environment, see: http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2017/05/ClimateImpactQuantEasing_Matikainen-et-al-1.pdf
Can Green Quantitative Easing (QE0) reduce global warming? Yannis Dafermos, Maria Nikolaidi & Giorgos Galanis, Foundation for European Progressive Studies, July 2018, see: <https://www.fepeurope.eu/attachments/publications/fepe%20perc%20policybriefgreenqe.pdf>

⁵⁰ Speech by Benoît Coeuré, Member of the Executive Board of the ECB, at a conference on “Scaling up Green Finance: The Role of Central Banks”, organised by the Network for Greening the Financial System, the Deutsche Bundesbank and the Council on Economic Policies, Berlin, 8 November 2018, <https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp181108.en.html>

⁵¹ For example, as of January 2019 the French Bank Natixis (Groupe BCPE) has introduced a Green Weighting Factor for its financing deals to comply with Paris Agreement goals, see: https://www.natixis.com/natixis/jcms/tpaz5_68794/en/natixis-innovates-on-climate-action-by-introducing-the-first-green-weighting-factor-for-its-financing-deals-to-comply-with-paris-agreement-goals

being involved in the Investment Plan for Europe (so-called Juncker Plan), or Public Institutions in EU Member States⁵² at limited cost for taxpayer. Such blended finance approach that combine private investment by partial public guarantees is likely to attract many investors by enhancing the risk profile of EU certified green bonds, in particular for non-investment grade green bonds.

Recommendation #08. The TEG recommends that the EC considers encouraging the institutions involved in the implementation of the Investment Plan for Europe (so-called Juncker Plan) to develop measures supporting the green bond market. Such measures could take form of credit enhancement guarantees for sub-investment grade green bonds or the provision of anchor investment in green bond issuance, e.g. through dedicated funds.

5.1.6 Encourage EU public and private sector bond issuers to adopt the EU GBS

The public sector has historically played and still plays a very important role in the green bond market and public sector green bond issuances represented more than one third of global issuances of in 2018⁵³. Indeed, in 2018 sovereign green bond issuers have accounted for 11% of issuances, local governments, including regions and municipalities in the EU for 4%, Government-backed entities for 10% and the multilateral agencies and development banks accounted for 9%. Public sector issuer have also been at the forefront of defining best market practices and it would therefore be natural for the European public sector to demonstrate leadership by endorsing the EU GBS.

The private has also played an important role in developing the market and the leading European private sector issuers of green bonds have demonstrated strong commitments to support market growth, aiming for the highest standards. In December 2017, for example, nine industrial issuers of green bonds have publicly committed to support the green bond market as part of their strategy, financing policy and their active engagement in the reporting debate and dialogue with investors by signing the *Paris Green Bond Pledge*⁵⁴.

Both public and private issuers can therefore play an important role in promoting and supporting the implementation of the EU GBS.

Recommendation #09. The TEG encourages all types of bond issuers to issue their future bonds in compliance with the requirements of the EU GBS.

This recommendation should cover public sector issuers including sovereign green bond issuers by EU Member States, local governments, including regions and municipalities across the EU, government-backed entities in the EU as well as bilateral and multilateral agencies and development banks, and private-sector entities, for example, where European Investors have significant ownership. Such a public-sector support would greatly increase the credibility of the EU GBS and thereby set an example for other issuers to follow. It would also contribute to enhancing the attractiveness of the green bond market for investors through market diversification and could trigger further market growth.

⁵² Such as, for example, France Transition recommended in a recent report prepared by by Canfin/Zaouati for the French Ministries of Finance and Ecological and Fair Transition, see: Rapport Canfin-Zaouati : un plan Juncker vert à la française, December 2018 <https://financefortomorrow.com/2018/12/18/rapport-canfin-zaouati/>

⁵³ Data from: 2019 *Global Green Bond Outlook*, Moody's Investor Services, 31 January 2019, exhibit 5 on page 5 <https://www.moody.com/newsandevents/topics/Green-Bonds-007034>

⁵⁴ Including: EDF, Enel, ENGIE, Iberdrola, Icade, Paprec, SNCF Réseau, SSE and TenneT, see: <http://sse.com/media/490746/Paris-Green-Bond-pledge-Pledge-text.pdf>

With respect to private sector issuers, this recommendation is addressed to all types of bond issuers, irrespectively whether they have already issued green bonds or not, be they corporate, industrial or financial companies, with or without public ownership.

5.1.7 Develop a grant scheme (with a sunset clause) to offset the additional costs of external verification

Several jurisdictions outside the EU, including China, Hong Kong and Singapore, have put in place grant schemes to subsidise eligible green bond issuers in obtaining verification, most of which for a limited duration with a clear sunset clause.

The EC could decide to subsidise – totally or partially -- the additional cost associated with external verification according to the EU GBS in order to equalise issuance costs with mainstream bonds.

Such a grant-scheme to offset the (additional) cost of external for both first time and repeat issuers could be set up by the EC relatively easily and at a modest cost to the European taxpayers. If implemented during the transition period until the taxonomy is fully available (i.e., sunset clause until the end of 2022) and given the fact that the external review market is dominated by European players and is of limited size (in the order of EUR 3-7.5m⁵⁵ in fees) such a programme would require relatively modest financial resources. In addition, it could strengthen the existing ‘eco-system of European external review service providers and, potentially, help adoption of best practice by European accredited verifiers and contribute, ultimately to disseminating these best practices internationally.

The EU GBS working group considers such a support programme to be helpful but likely to be insufficient on its own to trigger a change in scale in terms of issuance amounts.

Recommendation #10. The TEG recommends that the EC considers setting up a grant scheme to off-set the additional cost of external verification for issuers, support capacity-building among by accredited verifiers, and promote the development and application of best practices in the EU and internationally.

5.1.8 Use the requirements of the EU-GBS as technical criteria for the future EU ecolabel for financial products

Under the Sustainable Finance Action Plan the EC is currently also pursuing efforts to develop an EU Ecolabel for financial products to provide retail investors desiring to invest in sustainable economic activities with more and better information.

While, of course, bonds are in most cases not directly available to retail investors, they represent an important share of the underlying components of financial products geared towards long-term retail investor targeted products such as pension savings schemes or life-insurance-related savings products. As a result, the minimum environmental performance that the EC is currently developing on the basis of the requirements of the EU Ecolabel Regulation 66/2010 should take advantage of the additional disclosures on use-of-proceeds offered by green bonds and, more

⁵⁵ A back-of-the envelope calculation, assuming approximately 150 issuers across Europe with average prices for external review services ranging between 20-50kEUR yields a rough estimate of the total external review market in the order of 4-10 million euros. As a result, a grant-scheme covering a maximum of 50% of the total costs of external reviews/certification is likely to offset the marginal cost of additional requirements, using a conservative assumption of 100% growth (= approximately 300 issuers) in issuers and 100% increase in unit costs per external review (approximately 40-100kEUR) would cost the European taxpayer approximately EUR 6m-15m annually.

importantly, the impact reporting which is envisioned as a core component of the EU GBS. The TEG is convinced that an explicit reference to the EU GBS would enhance the use of the standard.

Recommendation #11. The TEG recommends that the EC explicitly refers to the EU GBS in the technical criteria that are currently being developed for the EU ecolabel for financial products, so as to promote the adoption of the EU GBS among bond issuers.

5.2 Incentives that are more complex and require further analysis

In addition, the TEG has identified a second group of incentives that are more complex to implement because they require other authorities' agreement, different competencies in play and/or can have very different timelines.

These incentives will require further analysis by the TEG as well as outreach and feedback from a broad range of stakeholders. At this stage, they are included here for informational purpose and are not (yet) included in the TEGs preliminary recommendations. Further analysis will be provided by the TEG for the final report.

5.2.1 Tax incentives

Tax incentives for EU Green Bonds could also support future market growth. Given that taxation is the competence of Member States, the EC could encourage Member States to assess supporting the green bond market through tax incentives (including accelerated depreciation for assets financed by green bonds and loans). These incentives could either be granted at issuer or investor level. Examples for tax incentives in the fixed income market exist in jurisdictions outside the EU, such as, for example, in the area of clean energy are the U.S. federal government Clean Renewable Energy Bonds (CREBs) and Qualified Energy Conservation Bonds (QECBs) programmes.

5.2.2 Financial sector regulation and prudential rules

The EU GBS working group welcomes the work of central banks and supervisors in assessing the differences in risk profile of green and non-green financing, starting with mortgages. First findings of Bank of England staff⁵⁶ already indicate better creditworthiness for more energy-efficient properties. This result remains unchanged, even if mortgage borrowers' income at origination is taken into account. According to the authors some banks have started to price mortgages against energy-efficient properties at lower rates, implying a lower risk premium. The EU GBS working group is also aware of other market initiatives working on this topic like the Energy Efficient Mortgages Project (EeMAP) and the European Covered Bond Council (ECBC).

In case further research supports these findings, banking regulatory and prudential rules should take this into account. From the market development perspective, it is also important to keep in mind harmonisation of adequate definitions of green and sustainability related assets, economic activities and risks.

The EU GBS working group is also aware of the mandate in the recent amendment of the Capital Requirement Regulation (Article 501), based on which the EBA shall assess on the basis of available data and the findings of the High Level Expert Group on Sustainable Finance of the EC whether a dedicated prudential treatment of assets exposed to activities associated

⁵⁶<https://bankunderground.co.uk/2018/10/16/insulated-from-risk-the-relationship-between-the-energy-efficiency-of-properties-and-mortgage-defaults/>

substantially with environmental and /or social objectives, in the form of different capital charges, would be justified from a prudential perspective.

The TEG recommends that as part of this mandate the EBA may also assess the possibility to develop a segment of green bonds that would define the conditions to be met by EU GBs in order to possibly benefit from a preferential prudential treatment, similar with what EBA did for covered bonds, European Secured Notes (ESN) and Simple, Transparent and Standardised (STS) securitisation.

Last but not least, the EU GBS working group also welcomes the mandate given to the EBA in the recent amendment of the Capital Requirements Directive (Article 98) to assess the potential inclusion in the review and evaluation performed by competent authorities of environmental, social and governance risks.

6 SYNERGIES OF THE EU GBS WITH THE GREEN LOAN MARKETS

To date, the bank loan market is still the largest source of financing for the corporate sector in Europe⁵⁷. The European corporate bond markets are dominated by investment grade issuers and the issuances are concentrated in a few countries. As explained above, bond issuance typically requires a credit rating and minimum issue size that is not accessible for small and medium sized companies or municipalities (outside their domestic markets). Also, large corporates that frequently borrow from bond markets may use green bank loans for specific purposes in the lack of adequate green volume, for pricing or other reasons. Bank loans will therefore remain a key funding instrument for many players in Europe, and they should be able to get loans as well as bonds in green format.

The green loan market has developed alongside the green bond market and there are currently at least three types of asset based green loans in the market:

- Green loans, typically syndicated term loans or revolving credit facilities, made available exclusively to finance or re-finance, in whole or in part, new and/or existing eligible Green Projects. These are increasingly aligned with the *Green Loan Principles*⁵⁸ released in March 2018 by the Loan Markets Association (LMA) and the Asia-Pacific Loan Markets Association (APLMA) with the support of ICMA. These Principles are closely related to the GBP and recommend transparency on: (i) Use of Proceeds, (ii) Process for Project Evaluation and Selection (iii) Management of Proceeds and (iv) Reporting⁵⁹. The eligible green projects and economic activities are described on a high level in line with the GBP, but the borrower maintains flexibility to use their own definitions and criteria. There are also comparable definitions of external reviews and adapted recommendations for their use.
- Bilateral green loans that the commercial, multilateral and development banks offer to their corporate and institutional customers to finance specific green purposes with set

⁵² European Commission, “Sustainable finance: Making the financial sector a powerful actor in fighting climate change,” 24 May 2018, available at http://europa.eu/rapid/press-release_IP-18-3729_en.htm

⁵⁸ *Green Loan Principles*, March 2018, https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/LMA_Green_Loan_Principles_Booklet-220318.pdf

⁵⁹ https://www.lma.eu.com/application/files/9115/4452/5458/741_LM_Green_Loan_Principles_Booklet_V8.pdf

criteria and reporting requirements. The loans may, or may not be public, and the terms vary considerably.

- Loans offered to retail borrowers for specific purposes that are deemed to be green (green mortgages, energy efficiency improvement and renewable energy loans, hybrid/ electric vehicle leasing etc.). The number of loans is typically large and the amount of each loan small.

The loan types mentioned above form the basis for green assets and asset categories underlying the green bond issuance by the banking sector. Currently external verification of the individual bank loans is not systematic. However, the underlying loans i.e. the green assets, their selection criteria, process and reporting typically get some level of external review when they are refinanced by green bonds issued by the bank in question.

There are other types of loans, sometimes called sustainability improvement loans whose remuneration and/or covenants are linked to the borrower's achievement of pre-determined environmental benchmarks. In contrast to asset based green bonds and loans, sustainability improvement loans look to performance across the whole borrower, not just part of its business. The Key Performance Indicators (KPI)'s range from ESG ratings to carbon footprint improvements and are set by the borrower. LMA, APLMA and LSTA are developing principles for this type of loans as well. These types of loans do not usually offer the level of transparency that is required by EU GBS, GBP and GLP and thus are not suitable assets for EU GBS issuance either.

The intention for the TEG is to create an EU GBS that could that the same time become a useful reference in the loan market. Harmonisation of concepts and definitions is an important prerequisite for mainstreaming green financing. This Subgroup will consider further proposals to promote such harmonisation.

ANNEX 1: DRAFT MODEL OF THE EU GREEN BOND STANDARD

1. Scope of the EU Green Bond Standard (GBS)

The EU GBS is a voluntary standard proposed to issuers that wish to align with leading best practices in the market. It is designed to be globally relevant and accessible to issuers located in the EU as well as to issuers located outside the EU. It builds on market best practices such as the Green Bond Principles (GBP).

2. Objective of the EU GBS

The EU GBS is intended to provide a framework of core components for EU Green Bonds, as defined below, thereby enhancing transparency, integrity, consistency and comparability of EU Green Bonds. The ultimate objective is to increase the flow of finance to green and sustainable projects.

3. Definition of an EU Green Bond

An EU Green Bond is 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 GBS, and therefore meeting the following requirements:

1. The issuer's Green Bond Framework shall confirm the alignment of the EU Green Bond with the EU GBS; AND,
2. The proceeds, or an amount equal to such proceeds, shall be exclusively used to finance or re-finance in part or in full new and/or existing Green Projects as defined in section 4.1, as it shall be described in the bond documentation, AND
3. The alignment of the bond with the EU GBS shall have been verified by an accredited External Reviewer in accordance with section 4.4.

An issuer may only use the term 'EU Green Bond' if the above criteria are met. European and international issuers may decide to voluntarily requalify their existing green bonds as EU Green Bonds in the same manner and, for the avoidance of doubt, after verification by an accredited External Reviewer.

It is important to note that EU Green Bonds are only fungible with green bonds issued as EU Green Bonds or requalified as EU Green Bonds.

4. Core components of the EU GBS

4.1. Green Projects

Proceeds from EU Green Bonds, or an amount equal to such proceeds, shall be allocated only to finance or refinance Green Projects defined, subject to confirmation by an accredited External Reviewer (see section 4.4), as (a) contributing substantially at least one of the EU's Environmental Objectives namely (i) climate change mitigation, (ii) climate change adaptation, (iii) sustainable use and protection of water and marine resources, (iv) transition to a circular economy, waste prevention and recycling; (v) pollution prevention and control and (vi) protection of healthy ecosystems, while (b) not significantly harming any of the other objectives and (c) complying with the minimum social safeguards represented by 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.

When the EU Taxonomy Framework will be in force and where technical screening criteria have been developed in the Taxonomy for specific environmental objectives and sectors, Green Projects shall align with these criteria allowing however for exceptional cases where these may not be directly applicable as a result among other of the innovative nature, the complexity, and/or the location of the Green Projects. An accredited External Reviewer shall then either confirm alignment with the technical criteria, or alternatively that the projects nonetheless meet the requirements under the EU Taxonomy framework i.e. that they (a) contribute substantially to at least one of the EU’s Environmental Objectives (b) do not significantly harm any of the other objectives and (c) comply with the minimum social safeguards.

The issuer shall provide a description of such Green Projects in their Green Bond Framework (see section 4.2) and in the Green Bond legal documentation. In case that the Green Projects are not identified at the date of issuance, the issuer shall describe the type and sectors and/or environmental objectives of the potential Green Projects.

Green Projects may include:

1. eligible green assets (including physical assets and financial assets such as loans), as well as the share of the working capital that can reasonably be attributed to their operation and, for the avoidance of doubt, including potentially both tangible and intangible assets;
2. eligible green capital expenditures;
3. eligible green operating expenditures related to improving or maintaining the value of eligible assets;
4. eligible green expenditures from sovereigns, sub-sovereigns and public agencies.

Eligible green expenditures (item 2, 3 and 4) shall qualify for refinancing with a maximum three [3] years look-back period before the issuance year of the bond. Eligible assets (item 1) shall qualify without a specific look-back period.

For the avoidance of doubt, a specific green asset or expenditure can only qualify as a Green Project for direct financing by one or several dedicated green financing instruments (such as bonds or loans) up to the combined equivalent of its full value. It is understood that green financing instruments can be refinanced by other such green financial products.

4.2. Green Bond Framework

The issuer shall produce a Green Bond Framework (“GBF”) which confirms the voluntary alignment of green bonds issued following this GBF with the EU GBS and provides details on all the key aspects of the proposed use of proceeds and on its green bond strategy and processes.

The Issuer shall indicate the following elements in their GBF:

- 1 The environmental objectives of the EU Green Bond or EU Green Bond programme and how the issuer’s strategy aligns with such objectives, as well as their rationale for issuing.
- 2 The process by which the issuer determines how Green Projects align with the EU Taxonomy with reference to section 4.1 and with the support of an accredited External Reviewer. Issuers are also encouraged to disclose any green standards or certifications referenced in project selection;

- 3 A description of the Green Projects to be financed or refinanced by the EU Green Bond. In case that the Green Projects are not identified at the date of issuance, the issuer shall describe where available the type and sectors of the potential Green Projects. Where confidentiality agreements, competitive considerations, or a large number of underlying projects limit the amount of detail, that can be made available, information can be presented in generic terms or on an aggregated portfolio basis.
- 4 The process for linking the issuer's lending or investment operations for Green Projects to the EU Green Bond issued. The issuer shall track the amount allocated to Green Projects in an appropriate manner until such amount equals the net proceeds and document the allocation through a formal internal process;
- 5 A description of the Reporting including information on the expected frequency, the methodology and the assumptions to be used for the calculation of core impact metrics related to the EU Taxonomy and, if available, on any other additional impact metrics.

For the avoidance of doubt, it is understood that subsequent changes to the Taxonomy will not apply to outstanding EU Green Bonds (grandfathering). Conversely new issues shall be aligned with the most recent version of the Taxonomy and as relevant to their Green Projects.

The GBF shall be published on the issuer's website or any other communication channel before or at the time of the issuance of an EU Green Bond and shall remain available until maturity of such EU Green Bonds.

4.3. Reporting

Issuers 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. Reporting shall include:

- A statement of compliance with the EU GBS;
- The amount allocated to each Green Projects or Green Project categories; with the classification of such projects according to the EU Taxonomy or to EU Environmental Objectives as specified in the GBF;
- The nature of Green Projects (assets, capital expenditures, operating expenditures, etc.)
- The share between Green Project financing and refinancing;
- If applicable, the share of Green Projects financed by the Issuer;
- The actual or estimated environmental impact of the Green Projects based on metrics outlined in the GBF. If additional metrics are used to report on impact, issuers shall outline methodology and assumptions applied; Issuers shall report quantitative metrics wherever possible, over a defined reporting period (generally an annual period or over a Green Project's lifetime)
- The regional distribution of Green Projects
- The Green Bond Ratio⁶⁰

For the avoidance of doubt reporting may cover several EU Green Bonds, as relevant.

A proposed format for the reporting under the EU GBS is attached. Issuers can however adapt the format if necessary.

⁶⁰ The Green Bond Ratio, represents the 'total amount of green bonds outstanding divided by the total amount of debt outstanding at the end of the reporting period'. More information is provided in the recent TEG report on climate-related disclosures, page 32: https://ec.europa.eu/info/publications/190110-sustainable-finance-teg-report-climate-related-disclosures_en

4.4. Verification

Issuers shall appoint External Reviewers to confirm:

- before or at the time of issuance, through an initial External Review, the alignment of their GBF in accordance with section 4.1 and 4.2 of the EU GBS; AND
- after allocation of proceeds, through an External Review, the alignment of their EU Green Bond allocation and actual or estimated impact, as presented in the Reporting in accordance with section 4.3 of the EU GBS.

For the avoidance of doubt, an initial External Review can be valid for several bonds issued under a programme with the same GBF.

It is also understood that for transactions that are fully allocated at issuance (e.g. as in the case of refinancing) information on impact can be incorporated in the initial External Review. Conversely, when impact is not known at the time of full allocation, this information can be published in one or several focused updates to the final External Review.

External Review(s), and any subsequent ones, shall be made publicly available on the issuer's website and through any other accessible communication channel as appropriate before or at the time of the issuance of its EU Green Bond(s).

External Review provider(s) will be subject to accreditation⁶¹ including explicit requirements related to (i) professional codes of conduct related to business ethics, conflicts of interest and independence; (ii) professional minimum qualifications and quality assurance and control; and (iii) standardised procedures for External Reviews.

In any case, External Review providers shall demonstrate the relevant expertise and experience in the components of the EU Green Bonds which they have reviewed. External Review providers shall also disclose their relevant credentials and expertise and the scope of the review conducted in the External Review report.

⁶¹ Further information on the accreditation process can be found in section 4 of this report

REPORTING FORM

1. Basic Information

Issuer name:

Related Green Bond ISIN(s):

Accredited External Review provider's name:

Reporting period:

Publication date of reporting:

Frequency of reporting:

Next reporting planned for:

Reference to the Green Bond Framework applied:

Is the Green Bond/Are the Green Bonds still in compliance with the EU Green Bond Standard?

Yes

No

2. Scope and Approach of Reporting

The reporting contains the following elements *[templates below to be included in the reporting accordingly]*:

Allocation Reporting

Impact Reporting

Combined Allocation and Impact Reporting

Approach for impact reporting:

Project-by-project reporting

Portfolio-based reporting

3. Allocation Reporting Templates

3.1. Allocation to Green Project Sectors⁶²

ISIN	Total Green Bond proceeds	Total Proceeds allocated so far	Proceeds allocated to Sector X	Proceeds allocated to Sector Y	Proceeds allocated to Sector Z
<i>XS12345689</i>	<i>EUR 500 million</i>	<i>EUR 400 million</i>	<i>EUR 300 million</i>	<i>EUR 50 million</i>	<i>EUR 50 million</i>

3.2. Additional information

[Please indicate regional allocation, i.e. where projects of allocated proceeds are located, and green bond ratio. Issuers shall provide relevant information in an appropriate manner, e.g. a pie chart with % numbers or in absolute terms]

4. Impact Reporting Templates

[Please select and fill out one of the templates below, as applicable. If the impact report relates to more than one Green Bond, please fill out one template per Green Bond and state the respective ISIN.]

4.1. Project-by-project Reporting

Project name	Project description	Sector and environmental objective	Total project cost	Share of financing	Amount of green bond proceeds allocated	Project start date/end date (if relevant)	Share of proceeds used for financing vs refinancing	Nature of green asset / expenditure	Impact metric ⁶³ (absolute, annually ⁶⁴) ⁶⁵	Impact metric ^{2/66} (relative) ³

⁶² In addition to reporting on the allocation per sector, issuers are welcomed to provide more detail on a project level.

⁶³ Provide a description of background on the methodology and assumptions used for the calculation of impact metrics, thresholds and indicators, or cross refer to those described in the Green Bond Framework.

⁶⁴ Where appropriate: additional column for lifetime/lifetime impact of the project.

⁶⁵ Please report only the pro-rated share of impact that corresponds to the project cost financed by the issuer (share of financing).

⁶⁶ Please add column(s) for other impact metrics as relevant. [link to Harmonized Framework, GBP Resource Centre, Nordic Issuers Reporting]

<i>Wind Farm One</i>	<i>Construction, installation and operation of a windfarm with an annual generation capacity of x MW/GW</i>	<i>Renewable energy (wind energy) / Climate Change Mitigation</i>	<i>EUR 100 million</i>	<i>75%</i>	<i>EUR 75 million</i>	<i>2016 ongoing</i>	<i>100% financing</i>	<i>tangible asset (90% CAPEX, 10% OPEX)</i>	<i>x t CO2e emitted (based on y gCo2e/kwh)</i> <i>x t CO2e avoided</i>	

4.2. Portfolio-based Reporting

Portfolio name	Portfolio description	Sector and environmental objective	Total portfolio cost	Share of financing	Amount of green bond proceeds allocated	Portfolio start date/end date (if relevant)	Share of proceeds used for direct financing vs refinancing	Nature of green asset /Expenditure	Impact metric ⁶⁷ (absolute, annually ⁶⁸) ⁶⁹	Impact metric ^{67/70} (relative) ⁷
<i>Solar energy portfolio</i>	<i>Installation of solar rooftop panels for 4000 private households with a total annual generation capacity of x MW/GW</i>	<i>Renewable energy (solar photovoltaic) / Climate Change Mitigation</i>	<i>EUR 40 million</i>	<i>90%</i>	<i>EUR 36 million</i>	<i>2017 ongoing</i>	<i>100% financing</i>	<i>Tangible asset, (100% CAPEX)</i>	<i>x t CO2e emitted (based on y gCo2e/kwh)</i> <i>x t CO2e avoided</i>	

⁶⁷ Provide a description of background on the methodology and assumptions used for the calculation of impact metrics, thresholds and indicators, or cross refer to those described in the Green Bond Framework.

⁶⁸ Where appropriate: additional column for lifetime/lifetime impact of eligible activity.

⁶⁹ Please report only the pro-rated share of impact that corresponds to the portfolio cost financed by the issuer (share of financing).

⁷⁰ Please add column(s) for other impact metrics as relevant. [link to Harmonized Framework, GBP Resource Centre, Nordic Issuers Reporting]

ANNEX2: VOLUNTARY ACCREDITATION SCHEME

In order to establish in the near term an accreditation scheme for external reviewers of the EU GBS, it is proposed to set up in 2019, a voluntary process open to all interested external review provider firms.

I Scope

The Voluntary Accreditation Scheme (hereafter the “the Voluntary Accreditation Scheme” or “the Scheme”) to be convened by a market initiative in cooperation with the EC will cover firms wishing to provide external review services to verify the conformity of green bond issues or issuance programmes with the EU GBS.

The scheme is designed for a transition period of approximately 2-3 years and is expected to be replaced by direct supervision of such firms by ESMA as soon as relevant EU legislation enters into force. Nonetheless, the scheme may be prolonged if needed by the EC.

The mandate of the Voluntary Accreditation Scheme would be designed to cover the following areas:

- Develop and operate a robust voluntary accreditation scheme that would provide external verifiers the possibility to certify green bonds against the EU GBS applying a standardized verification programme.
- Inform Sustainability Platform with best practice guidance from external review practitioners.
- Promote training and capacity building platform for verifiers.
- Provide a public registry of accredited verifiers.

The Voluntary Accreditation Scheme may also be expanded for firms wishing to provide external review services for possible other future EU green financial product standards (e.g., green loans, private placements), as well as to provide more general advisory services relating to the alignment of projects with the EU Taxonomy.

II Accreditation Committee

The scheme would be designed to operate in close cooperation with the future EU Platform but would be established with its own governance and organization to enable a timely and independent launch. This could potentially involve:

1. An Accreditation Committee (AC) constituted by full members and observers selected in consultation with the EC based on a recommendation provided by the TEG;
2. A secretariat with operational staff that could be seconded from relevant supervisory committee organisations;
3. Agreed accreditation criteria (see below)
4. And potentially, one or several accreditation agents that would advise the secretariat on the conformity of the applications of external reviewers with respect to the accreditation criteria.

III Accreditation criteria

Accreditation criteria would be based on the proposals made by the TEG referencing existing market-based precedents such as CBI's Approved Verifiers, the LuxFLAG label, ICMA's Guidelines for External Reviewers and, relevant ISO standards including ISO 17029 and/or ISO 14030 1 to 4 so as to achieve harmonization with international standards currently under development.

Other professional guidelines and standards may also be considered such as relevance of the International Code of Ethics for Professional Accountants paying particular attention to section 4B – Independence for Assurance Engagements other than Audit and Review Engagements; the Attestation Standards established by the American Institute of Certified Public Accountants; ISAE 3000 (Revised); Assurance Engagements Other than Audits or Reviews of Historical Financial Information; IESBA Handbook of the Code of Ethics of Professional Accountants, section 291 Independence - Other Assurance Engagements; and the AICPA Code of Professional Conduct (AICPA Code). Also applicable may be the standard provided by ISO 9001, as well as certification from the Association for Responsible Investment Services (ARISE).

In summary, and in line with current market practice, all firms providing verification services will confirm that they will be guided by the following five fundamental ethical and professional principles:

1. Integrity
2. Objectivity
3. Professional Competence and Due Care
4. Confidentiality
5. Professional Behaviour

While providing verification services related to the EU GBS, external reviewers will also confirm and provide evidence that they:

1. Have an organisational structure, working procedures, and other relevant systems for carrying out the verification services.
2. Employ appropriate staff with the necessary experience and qualifications for the scope of the external review being provided.
3. Have appropriate professional indemnity / professional liability insurance cover.

Verifiers will also demonstrate that they have competence and experience ⁷¹ in:

- The characteristics and issuance processes of listed and unlisted debt market products;
- The management of confidential and market sensitive information
- Assessing environmental projects for all or certain environmental objectives and for all or certain sectors covered by the EU Taxonomy and/or otherwise meet the requirement of the EU sustainable investment framework under the proposed regulation on the establishment of a framework to facilitate sustainable investment [see: COM(2018) 353 final 2018/0178 (COD)]

⁷¹ Draft list - adapted from CBI's approved verifiers scheme – to be finalized.

Providing assurance services and/or conformity assessments in line with, among others, ISAE 3000 and/or [DIS ISO 17029]

ANNEX3: MEMBERS OF THE TECHNICAL EXPERT WORKING GROUP

The full list of members of the Technical Expert Group is available from the EC website:

<http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=3588&NewSearch=1&NewSearch=1>

Type A - Individual expert appointed in his/her personal capacity

Name	Nationality	Professional Title	Subgroup
Andreas Hoepner	Germany		Member
Paolo Masoni	Italy		Member

Type B - Individual expert appointed as representative of a common interest

Name	Nationality	Professional Title	Membership Status
Brenda Kramer	Netherlands		Member

Type C - Organisation

Name of Organisation	Category	Countries/Areas represented	Membership Status
AIG Europe Ltd (AIG)	Banks/Financial Institutions	Belgium	Member
Allianz SE (Allianz Group)	Banks/Financial Institutions	Germany	Member
Bloomberg L.P.	Companies/Groups	United States of America	Member
BNP PARIBAS (BNPP)	Banks/Financial Institutions	France	Member
Borsa Italiana	Banks/Financial Institutions	Italy	Member
Carbone4	Professional Consultancies	France	Member
Cassa Depositi e Prestiti s.p.a. (CDP)	Banks/Financial Institutions	Italy	Member
CDP Worldwide (Europe) gGmbH (CDP Europe)	NGOs	Germany	Member
Climate Bonds Initiative (CBI)	NGOs	United Kingdom	Member
Climate-KIC Holding BV (Climate-KIC)	Other Organisations	European	Member
EnBW Energie Baden-Württemberg AG (EnBW)	Companies/Groups	Germany	Member
EURELECTRIC aisbl (EURELECTRIC)	Trade and business associations	European	Green Bonds
European Association of Co-operative Banks (EACB)	Trade and business associations	European	Green Bonds
EUROPEAN FEDERATION OF FINANCIAL ANALYSTS SOCIETIES (EFFAS)	Professionals' Associations	European	Green Bonds
Finance Watch	NGOs	Belgium	Member
Global Reporting Initiative	Other Organisations	Netherlands	Member
Green Finance Cluster Frankfurt e.V. (GFCF)	Other Organisations	Germany	Member
International Capital Market Association (ICMA)	Trade and business associations	Switzerland	Member
KfW Bankengruppe (KfW)	Banks/Financial Institutions	Germany	Member

MIROVA	Banks/Financial Institutions	France	Member
MSCI Limited (MSCI)	Other Organisations	United Kingdom	Member
Nordea Bank AB (publ) (Nordea)	Banks/Financial Institutions	Finland	Green Bonds (Chair)
Principles for Responsible Investment (PRI)	Trade and business associations	United Kingdom	Member
Refinitiv	Companies/Groups	Canada	Member
Royal Institution of Chartered Surveyors (RICS)	Professionals' Associations	European	Member
SCOR SE	Banks/Financial Institutions	France	Member
Skandinaviska Enskilda Banken AB (publ) (SEB)	Banks/Financial Institutions	Sweden	Member
Société de la Bourse de Luxembourg (Bourse de Luxembourg)	Other Organisations	Luxembourg	Member
Swiss Re Ltd.	Banks/Financial Institutions	Switzerland	Member
Unilever	Companies/Groups	Netherlands	Member
WiseEuropa - Fundacja Warszawski Instytut Studiów Ekonomicznych i Europejskich (WiseEuropa)	Academia, Research Institute and Think Tanks	Poland	Member
WWF European Policy Programme (WWF EPO)	NGOs	European	Member
Banque de France/ Network for Greening the Financial System	Other Organisations	France	Observer

Type E - Other public entity

Name of Organisation	Entity type	Countries/Areas represented	Membership Status
European Banking Authority	EU Agencies	European	Member
European Central Bank	EU Institutions/Bodies	European	Member
European Environmental Agency	EU Agencies	European	Member
European Insurance and Occupational Pensions Authority	EU Agencies	European	Member
European Investment Bank	EU Institutions/Bodies	European	Member
European Securities Market Authority	EU Agencies	European	Member
European Bank for Reconstruction and Development	International/Intergovernmental Organisations	International	Observer
Organisation for Economic Co-operation and Development (OECD)	International/Intergovernmental Organisations	International	Observer
United Nations Environmental Programme Finance Initiative	International/Intergovernmental Organisations	International	Observer