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IMPACT ASSESSMENT

Accompanying the document

Proposal for a Regulation of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment

and Proposal for a Regulation of the European Parliament and of the Council on disclosures relating to sustainable investments and sustainability risks and amending Directive (EU) 2016/2341

and Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) 2016/1011 on low carbon benchmarks and positive carbon impact benchmarks

{COM(2018) 353 final} - {SEC(2018) 257 final} - {SWD(2018) 265 final} - {COM(2018) 354 final} - {COM(2018) 355 final}

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I. INTRODUCTION: POLITICAL AND LEGAL CONTEXT

1.1. EU policy context

The EU is committed to a development that meets the needs of the present without compromising future generations. Sustainability has since long been at the heart of the European project. The EU Treaties give recognition to its social and environmental dimensions. Governments from around the world chose a more sustainable path for our planet and our economy by adopting the 2016 Paris agreement on climate change and the United Nations (UN) 2030 Agenda for Sustainable Development (UN, 2015).

The 2016 Commission's Communication on the next steps for a sustainable European future links the Sustainable Development Goals (SDGs)[1] of the UN 2030 Agenda for Sustainable Development to the European policy framework to ensure that all EU actions and policy initiatives, within the EU and globally, take the SDGs on board at the outset. The EU is also fully committed to reaching the EU 2030 climate and energy targets[2] and to mainstream sustainable development into EU policies. Therefore, many of the European Commission's policy priorities for 2014-2020 feed into the EU climate objectives and implement the 2030 Agenda for Sustainable Development. These include the Investment Plan for Europe, the Circular Economy Package, other environmental policies including those that protect natural habitats, keep air and water clean and ensure proper waste disposal, the Energy Union package, the Clean Mobility package, the Capital Markets Union and the EU budget for 2014-2020, including the Connecting Europe Facility funds related to the Trans European Transport Network (TEN-T) policy objectives and the Cohesion fund and research projects. In addition, the Commission launched a multi-stakeholder platform to follow-up and exchange best practices on Sustainable Development Goals implementation.

Achieving EU sustainability goals requires important investments. In the climate and energy space alone, it is estimated that an additional annual investment of EUR 180 billion is needed to meet climate and energy targets by 2030.[3] A substantial part of these

[1] The seventeen SDGs provide qualitative and quantitative objectives for the next fifteen years to prepare ourselves for the future and work towards human dignity, stability, a healthy planet, fair and resilient societies and prosperous economies.

[2] The Energy Union and the Energy and Climate Policy Framework for 2030 establish ambitious EU commitments to further reduce greenhouse gas emissions (at least 40% by 2030), to increase the share of renewable energy consumed and to save energy to increase Europe's energy security, competitiveness and sustainability. In this context, the Commission released the "Clean Energy for All Europeans" package in November 2016. For climate mitigation, the EU has set itself ambitious targets and specific legislation including the EU Emission Trading System (applicable to heavy energy-using installations, which covers about 45% of EU GHG emissions), the Effort Sharing Decision, and specific legislation targeting specific areas such as fluorinated gasses and emissions from land use. In addition to these EU commitments, the EU legislative framework contains a number of instruments and legal requirements to steer investments to accelerate the low-carbon and clean energy transformation of the EU economy. In the area of energy efficiency, the EU legislation includes for instance minimum energy performance requirements for new and existing buildings, new appliances and new vehicles, labels for products, or certificates for buildings to help consumers choose energy efficient products or buildings. More than 85% of consumers already recognise the EU Energy Label and use it when making purchase decisions. On adaptation to climate change, the EU has put in place a strategy which supports and facilitates EU Member States to make national adaptation plans, and to prioritize the public investments that are needed for the EU to become climate resilient.

[3] The estimate is a yearly average investment gap for the period 2021 to 2030, based on projections from the PRIMES model, an EU energy system model which simulates energy consumption and the energy

financial flows will have to come from the private sector. Closing this investment gap means significantly and rapidly reorienting private capital flows towards more sustainable investments. Yet, most of the existing sustainability commitments do not explicitly address the role of the financial system in supporting projects in line with the strategic objectives.

A mix of measures is needed to meet the EU's immediate and longer-term objectives for sustainability policies. Having in place a strong regulatory framework is part of that, but not always sufficient.[4] To ensure a rapid and orderly transition to a sustainable economy, it is essential to also help reorient capital flows away from polluting to greener activities and therefore increase access to finance for the latter.[5].

1.2. High-Level Expert Group on sustainable finance

The Commission established in December 2016 a High-Level Expert Group (HLEG) to develop an overarching and comprehensive EU strategy on sustainable finance. The HLEG published its final report on 31 January 2018 (HLEG, 2018). This report provided a comprehensive vision on sustainable finance for Europe and identified two imperatives for Europe's financial system. The first is to improve the contribution of finance to sustainable and inclusive growth. The second is to strengthen financial stability by incorporating Environmental, Social and Governance (ESG) factors into investment decision-making. Directive 2016/234 introduced ESG factors in the EU legislation by making a reference to the United Nations-supported Principles for Responsible Investment[6]. Although there is no universal definition of ESG factors within the investment industry, it is widely accepted that ESG factors are a universal concept that include a range of environmental, social and governance factors as illustrated in *Figure 1*. According to United Nations Environment Programme (UNEP) Inquiry and the United-Nation Backed Principles for Responsible Investment (UNPRI), ESG factors are broadly defined as follows: (i) Environmental (E) issues relate to the quality and functioning of the natural environment and natural systems; (ii) Social (S) issues relate to the rights, well-being and interests of people and communities; and (iii) Governance (G) issues relate to the governance of companies and other investee entities.

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supply system, used by the European Commission in the 2016 Impact Assessment of the Proposal of the Energy Efficiency Directive.

[4] On this point, the Environmental Implementation Review presents an overview of implementation of EU environmental acquis per policy area, highlighting, amongst others, gaps in implementation, including financing, as reasons for why the EU is not on track to meet environmental objectives in a range of policy areas.

[5] By way of example, according to the European Environment Agency, in 2015 the transport sector contributed 25.8 % of total EU-28 greenhouse gas emissions. Emissions need to fall by around two-thirds by 2050, compared with 1990 levels, in order to meet the long-term 60% greenhouse gas emission reduction target as set out in the 2011 Transport White Paper. Therefore, a shift of capital flows towards more sustainable modes of transport infrastructures, as well as the greening of mobile assets (e.g. vessels and vehicles), and investments promoting modal shift and traffic management, is key.

[6] Recital 58 of Directive (EU) 2016/2341 of the European Parliament and of the Council of 14 December 2016 on the activities and supervision of institutions for occupational retirement provision (IORPs)

Box 1: Definition of "sustainable finance"

Sustainable finance generally refers to the process of taking due account of environmental social and governance considerations in investment decision-making. This would require that sustainability risks are always taken into consideration when making investment decisions, and not only when sustainable impact investments are selected based on very explicit sustainability preferences of investors. Investors can invest sustainably either by integrating ESG factors/risks in investment decision making, or by investing directly into economic activities that positively contribute to sustainability.[7]

In this impact assessment, the concept of sustainability is operationalised by referring to so-called ESG factors. Although there is no definitive list of which issues or factors are covered by the terms "ESG", they are - according to UNEP Inquiry and the PRI,[8] broadly defined as follows: (i) **Environmental (E)** issues relate to the quality and functioning of the natural environment and natural systems; (ii) **Social (S)** issues relate to the rights, well-being and interests of people and communities; and (iii) **Governance (G)** issues relate to the governance of companies and other investee entities.

Figure 1: ESG factors

- climate change
- greenhouse gas (GHG) emissions
- resource depletion, including water
- waste and pollution
- deforestation
- biodiversity loss
- changes in land use
- ocean acidification
- changes to the nitrogen and phosphorus cycles

- human rights
- working conditions, including slavery and child labour
- freedom of association and freedom of expression
- local communities
- conflict areas
- health and safety
- employee relations and diversity
- consumer protection

- executive pay
- bribery and corruption
- political lobbying and donations
- board diversity and structure
- shareholder rights
- stakeholder interaction
- tax strategy

Source: UNPRI (2018b)

The HLEG issued a series of recommendations, which it believes are essential building blocks of a sustainable European financial system. Among these recommendations, the HLEG calls for the establishment of a technically robust classification system at EU-level to provide clarity on what is 'green' or 'sustainable' – a so-called sustainability

[7] In this impact assessment, the proposed actions on investors' duties and the related disclosure focus on the application and integration of sustainability risks in the investment and advisory process. The action related to the establishment of a taxonomy of environmentally sustainable activities aims at defining the set of activities that meet environmental objectives. It does not therefore correspond to the broad set of risks related to the environment that could affect investment's financial performance as intended by the initiative on the clarification of the duties towards investors.

[8] While market practitioners still use various ESG definitions, the UN-backed Principles for Responsible Investment (PRI 2017) and the UNEP (2016) definitions have gained the most prominence in recent years. They are generally aligned on the overall concept of sustainability and have negligible differences on environmental factors. The PRI definition contains a limited number of additional elements on social and governance factors.

taxonomy. A second recommendation of the HLEG is to clarify that asset managers and institutional investors, such as pension funds and insurance companies, integrate ESG factors in their investment decision process and enhance disclosure to their end clients in that regard. The HLEG's report also recommends that investment preferences of end-investors on sustainability objectives be taken into account along the investment chain and in the advisory process. Another recommendation of the HLEG is on benchmarks, which are used to gauge the performance of financial products. In the HLEG's view, greater transparency and guidance on sustainable benchmarks is needed.

1.3. The EU Action Plan on Financing Sustainable Growth

To follow-up on the work of the HLEG and contribute to broader efforts to connect finance with the needs of the planet and society, the Commission published on 8 March 2018 an Action Plan on Financing Sustainable Growth (EC, 2018a). The proposed approach is part of the EU implementation of the Paris Agreement, which specifically committed (in article 2(1)(c)) to aligning financial flows with global climate objectives. It is also crucial to reduce the fall-out from possible stranded assets and ensure an orderly transition. Finally, it is also part of the EU implementation of the UN 2030 Agenda for Sustainable Development.

The Action Plan has three overarching objectives, namely: (i) reorienting capital flows towards sustainable investments to achieve sustainable and inclusive growth; (ii) managing financial risks stemming from climate change, resource depletion, environmental degradation and social issues; and (iii) fostering transparency and long-termism in financial and economic activity.

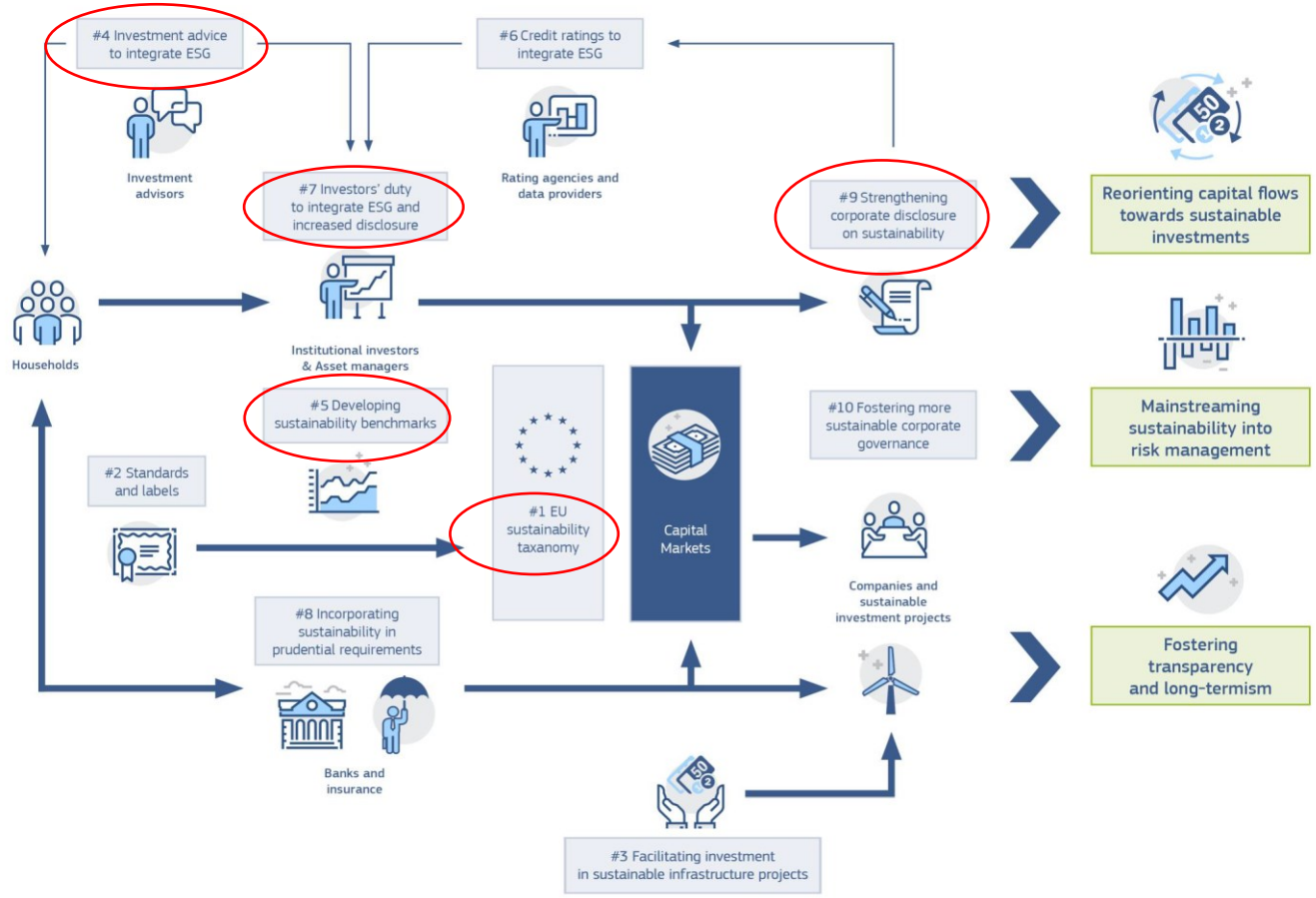
To achieve these goals, the Commission put forward ten actions (Figure 2), including those supported by this impact assessment. In particular, this impact assessment is related to action #1 (EU sustainability taxonomy), action #4 (investment advice to integrate ESG factors), action #5 (developing sustainability benchmarks), and action #7 (investors' duty to integrate ESG and increased disclosure, which touches also on parts of action #9).[9] Those actions are circled in red in Figure 2.

These actions should be seen as key parts of a broader and further-reaching strategy to make the European economy truly sustainable. The actions are complementary and mutually reinforcing in achieving the overarching objectives of the Action Plan and fostering transparency in particular, as further explained in this impact assessment. Specifically, establishing a framework to develop a common language on what sustainable activities are (action #1) will serve as a basis to launch other components of the Action Plan, such as action #2 on standards and labels and action #3 on investment in sustainable infrastructure projects. Clarifying the duties of care, loyalty and diligence of institutional investors, asset managers, insurance distributors and investment advisors (actions #4 and #7) will allow mainstreaming sustainability into risk management. In addition transparency will increase by improving disclosure on sustainability in investment decisions and advice (action #7 and part of action #9). Ultimately, these combined actions will help reorient capital flows towards sustainable investments.

[9] This refers in particular to point 9.4 of the Action Plan (EC, 2018a).

As regards timing, some of these actions – and the taxonomy in particular – will require several steps to become fully operational and start contributing to the achievement of the most pressing EU policy priorities, especially on climate change. This is why those actions are being proposed in parallel. In turn, the need to follow these intermediate steps is also reflected in the analysis of the different policy options presented in this impact assessment. In some cases (actions #4, #5 and #7 and part of action #9), the expected impacts of the various policy options are assessed in this impact assessment in greater depth. For action #1, this impact assessment mainly focuses on the problems that the action is meant to address, on the overall approach and guiding principles underpinning the taxonomy, the procedural and governance arrangements envisaged to make it operational and, where relevant, the legislative and procedural safeguards to be respected while moving along the various implementation steps and from one building block to the next. A more detailed assessment would then follow once the relevant implementation measures are put in place, as well as the future uses of the taxonomy are agreed on. Section 6.1 provides a detailed description of the timeline and of the logical sequencing for the proposed initiatives.

Figure 2: Visualisation of the ten actions proposed by the Action Plan



Source: EC, 2018a, p. 19

II. PROBLEM DEFINITION

There is a lack of clarity and transparency on how ESG factors are currently being integrated in the investment decision and advisory process. Considering these factors is important for all investors because ESG factors could affect the long-term risk-return trade-off.[10] A recent European Commission consultation (EC 2016b) concluded however that markets "do not sufficiently internalise ESG risks and respond to ESG opportunities". In addition, certain investors have explicit ESG preferences that are not sufficiently addressed. For these investors, it is essential that their personal values[11] are considered in the advisory process and reflected in the investment product selection.

Insufficient integration of ESG factors in the investment and advisory process is related to two problems. End-investors face high search costs in order (i) to identify sustainable economic activities and (ii) to find out how ESG factors are integrated in the investment decision process. Hence, investors face imperfect information. Secondly, relevant entities[12] might not be properly incentivised or have the tools to consider ESG factors in the investment and advisory process.

Five drivers underpin the above problems, **three of which stem from a regulatory failure, either because the design and implementation of existing EU law is not optimal, or because specific provisions on ESG disclosure** to address the issue of imperfect information **do not exist.** These drivers are: (i) lack of clarity and coherence of EU rules on duties towards investors/beneficiaries with respect to ESG integration in the investment and advisory process; (ii) lack of disclosure regarding the level of ESG integration in the investment process; (iii) lack of clarity on what can be considered a sustainable economic activity. **Two other drivers fall out of the scope of this impact assessment**: (i) the lack of comparable and readily available ESG information from firms and issuers and (ii) short-termism. Although the last two drivers are important in nature, they refer to broader structural issues that are tackled by separate initiatives, as reflected in the European Commission's Action Plan (EC, 2018a). Regarding the lack of sustainability disclosure at the level of firms and issuers in particular, it is worth recalling that, as part of the requirements of the Accounting Directive, companies (including small issuers), have to report non-financial information as part of their management report[13] to the extent necessary for an understanding of the company' development, performance or

[10] Kahn et al. (2016) show that firms with good ratings on material sustainability issues can significantly outperform firms with poor ratings on these issues. To the extent that these firms are part of the investment portfolio, the latter could exhibit the same characteristics. Materiality plays a key role, as industry-specific classifications of materiality appear to identify ESG information that is both value relevant and predictive of firms' future financial performance. Furthermore, such material ESG disclosures by firms are associated with lower capital constraints and lower cost of capital. See Annex IV for further details.

[11] These personal values can be related to individual behaviour (e.g. own ethical behaviour or ethical behaviour of investable firms) or could reflect desired outcomes such as the intention to contribute to a more sustainable society at large.

[12] With the aim to be concise, *relevant entities* are defined in this impact assessment as asset managers, institutional investors, investment advisors and insurance distributors.

[13] Article 19 of the Accounting Directive (Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings).

position. Furthermore, as of 2018, large listed companies will have to disclose a non-financial statement containing material information on key environmental, social and governance aspects and how related risks are managed.[14] In addition, relevant legislation on public reporting by companies is currently being subjected to a fitness check by the European Commission. Possible follow-up actions on this problem driver will thus draw on the results of the fitness check, which are expected around mid-2019.

2.1. What are the problems?

2.1.1. High search costs for end-investors

As regards ESG information, retail and institutional end-investors face increased search costs due to imperfect information. The availability of ESG information is crucial to ensure that investors who have the intention to invest in accordance with ESG criteria will actually do so.[15] Those investors search actively for this information: they tend to look more for social and environmental information than for traditional financial information.[16] However, they might have difficulties in finding relevant ESG information. Currently, the search for this type of information is hindered by (i) a lack of transparency on how ESG factors and ESG preferences are integrated in the investment and advisory process, including a lack of ESG-related disclosure; and (ii) the existing ambiguity with respect to what can be considered a sustainable economic activity, coupled with a lack of harmonisation of the methodologies to assess for instance climate-related risks and opportunities in line with low-carbon investment strategies. Hence, investors are confronted with imperfect information, which makes it difficult to retrieve relevant ESG information. As a result, end-investors face unnecessarily high search costs.

Evidence from the public consultation (EC, 2018b) confirms that the available information for some sustainability factors is insufficient. In this consultation, the vast majority of end-investors indicated that they are unable to make informed investment decisions based on the available sustainability information.[17] In particular, information on environmental and social factors is lacking. Corroborating evidence is also provided in a recent study (EC, 2015) that concludes that, although many institutional investors claim to apply sustainable and responsible investment strategies, the final impact of the inclusion of ESG criteria on investment decisions is rarely disclosed. In line with these observations, the 2018 HLEG final report highlighted that, without consistent and readily available information, it is difficult for end-investors to compare the ESG features of different investments. A prerequisite for doing so is to have an unambiguous way of qualifying what can be considered to be a sustainable economic activity and to have appropriate tools to assess ESG investment performance.

These issues lead to behavioural biases that affect the investment decisions of end-investors. The availability and quality of ESG information from relevant entities is a key

[14] Non-Financial Reporting Directive (Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial information and diversity information by certain large undertakings and groups).
[15] Following the literature that applies the theory of planned behaviour (Ajzen, 1991) to sustainable investing. See, e.g. Adam and Shauki (2014) for an application.
[16] See Nilsson, Nordvall, and Isberg (2010) who surveyed 369 socially responsible investors.
[17] See also Johnston and Morrow (2016) who report problems related to the lack of disclosure of ESG-relevant information to pension fund investors.

element to assess how ESG factors are integrated in the investment process, and to decide whether one would like to consider ESG factors when making an investment decision. In case investors are not properly made aware of sustainable investment options, they will be biased towards investing in the default setting (i.e. conventional investment without considering ESG factors). In addition, it will be difficult for them to develop their preferences towards ESG integration and make them known, given the lack or opaqueness of information, together with the perceived lack of impact. Finally, some studies note that it is unlikely that sustainability will become part of the financial decision making of end-investors, given that investment advisors do not discuss it, unless explicitly asked for by the client (Pilaj, 2017).

2.1.2. Lack of incentives for relevant entities to consider ESG factors

Relevant entities are required to act with prudence and in the best interest of their clients. This implies that they have to act loyally and exercise prudence, skill, care and diligence, in managing funds for their clients or beneficiaries. These principles are captured by fiduciary duty obligations in common law jurisdictions or analogous concepts like investor or beneficiary protection (e.g. policy holder protection) in pieces of EU legislations that apply to different market participants managing assets on behalf of clients and/or providing investment advice.

From a legal perspective, the extent to which these duties are compatible with taking ESG concerns into account has been subject to considerable debate.[18] Nevertheless **there is a growing consensus**[19] **that the consideration of ESG factors is compatible with fiduciary duties when**:

- ESG factors have a financial material impact on the investment performance or valuation;
- It is reasonable to assume that taking into account ESG factors is supported unanimously by the beneficiaries;
- ESG factors are a distinctive element when comparing investments with otherwise similar characteristics.

EU legislation does not constitute a barrier to integrate ESG factors. While ESG factors are not explicitly mentioned in the relevant EU legislation – with the exception of the IORP Directive[20] – existing financial regulation provides scope to incorporate them, given that all factors that have a material impact on financial performance should be considered in the investment and advisory process. This view is also shared within the industry: the public consultation (EC 2018b) reveals that the vast majority of respondents do not view European or national regulation as a barrier to incorporating ESG factors in their investment decisions.

There is however an issue with the implementation of existing legislation. While there are no legal barriers to integrate ESG factors, many relevant entities do not consider these in a consistent way in their investment process, and the number of entities that do consider ESG factors is only increasing slowly (see Box 2). In a similar spirit, the Commission's study (EC 2015) mentioned above indicated inter alia

[18] See, among others, Berry (2015), Sandberg (2011), Martin (2009) or UNEP (2015).
[19] See, e.g., Freshfields Bruckhaus Deringer (2005); EC (2015) and OECD (2017).
[20] IORP II explicitly encourages occupational pension funds to consider ESG factors.

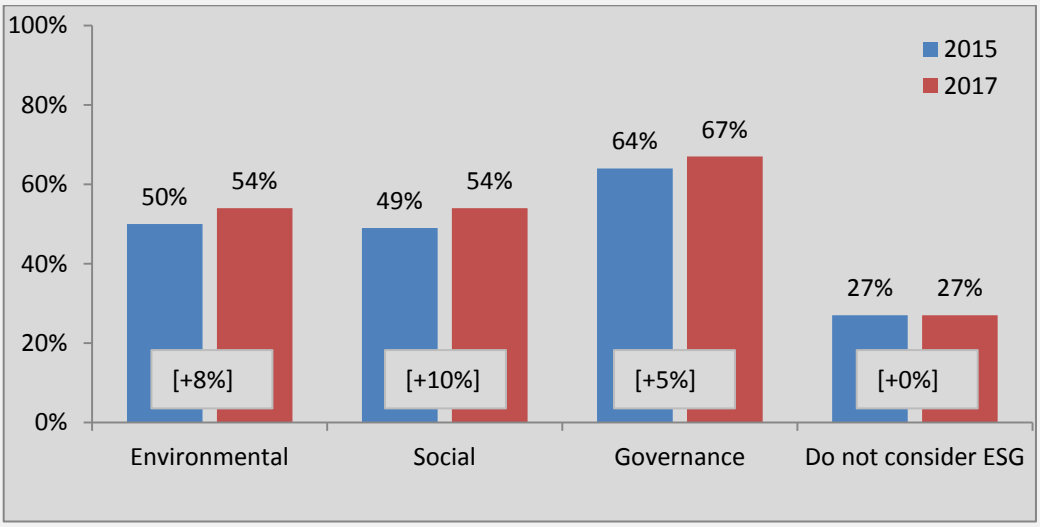
that the investment community should be incentivised to integrate environmental and resource efficiency issues into their decision-making process.

Box 2: ESG integration in the investment process

Overall, the level of integration of ESG factors remains moderate, despite an increasing awareness of the importance of ESG factors. More and more asset managers and institutional investors believe that sustainability factors affect the risk/return trade-off (OECD 2017).

A survey from the CFA Institute (CFA 2017) shows that a number of respondents[21] considered ESG factors in their investment analysis, but mainly with regard to governance issues. The management of investment risks is the main reason to consider ESG factors. Environmental issues were considered by only 54% of them in 2017 – with a compound annual growth rate of 3.9% since 2015, which is slow.[22]

Figure 3: ESG integration



Note: Y-axis represents the respondents of the total sample that take the ESG factor into account. Respondents can indicate more than one factor (if applicable). 2015-17 growth rate per category in vertical brackets. Source: European Commission analysis based on CFA (2017).

Concerning asset managers, a survey by Ernst & Young (2015) found that less than a quarter of investment professionals consider extra-financial information frequently in their investment decision process.

As regards pension funds, a survey by Mercer (2017)[23] reported that typically only around 20% integrate ESG risks in their investment process, mainly because of the financial materiality of these risks. Climate change risk is largely ignored, with only 5% of the respondents taking it into account, although both for the consideration of climate change risk as well as for the recognition of the financial materiality there is an increase compared to the previous year.

Although insurance companies do have to take into account material risks into their investment process, insurers responding to the public consultation (EC 2018b) state that insurance companies would benefit from improved integration of ESG factors in their investment process.

In the same public consultation (EC 2018b), approximately 60% of pension providers, insurance

[21] The 2017 survey reflects the views of 1 588 portfolio managers and research analysts.
[22] The number of respondents considering environmental factors increased by 8% over the period 2015-2018. At the corresponding compound annual growth rate of 3.9%, it would take more than 10 years before 75% of the respondents would consider environmental factors.
[23] The survey covers 1 241 institutional investors across thirteen countries, reflecting total assets of around EUR 1.1 trillion.

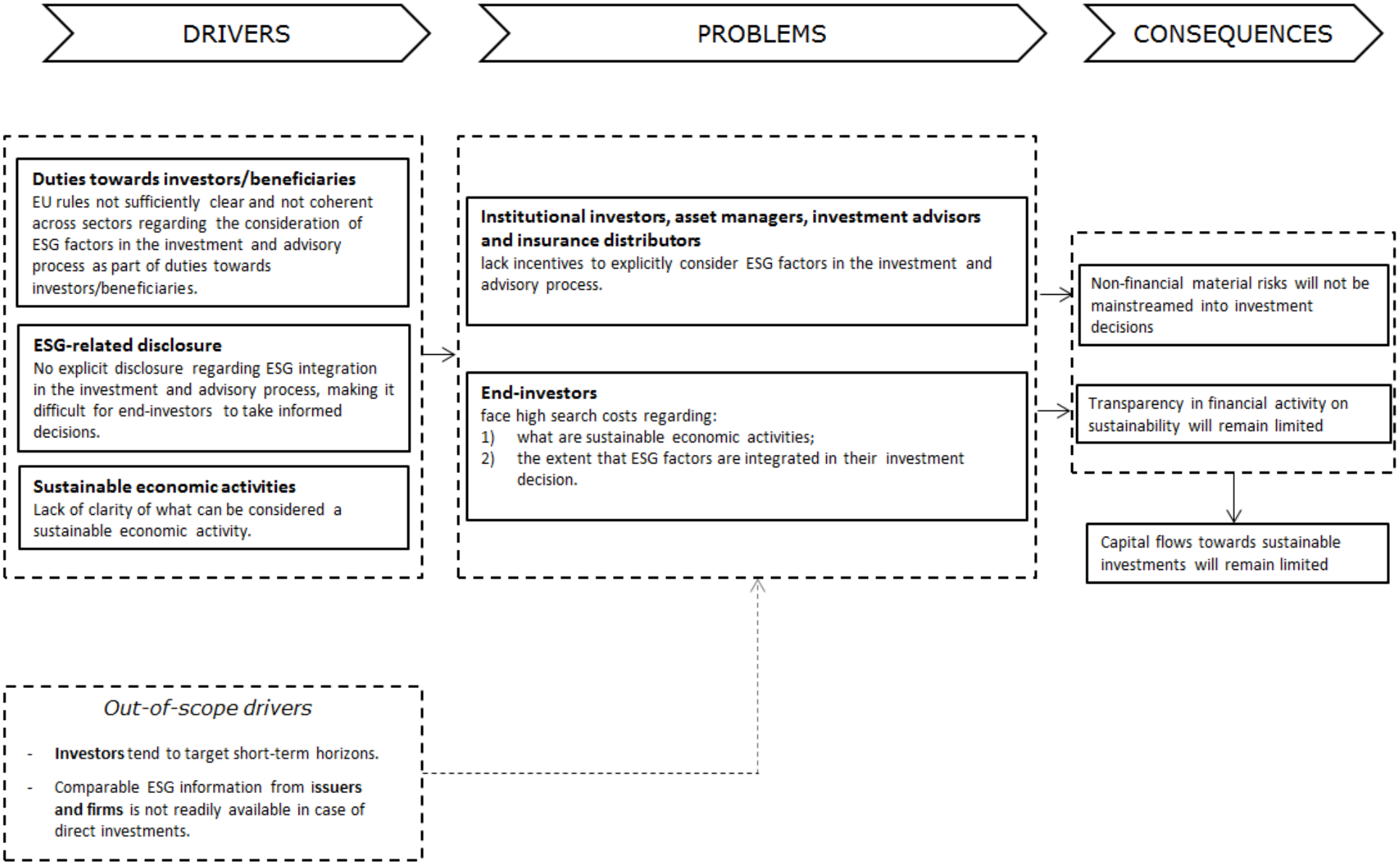
companies and asset managers reported that the level of ESG integration is 'low/no integration'. As to individual portfolio managers, 76% reported that the level of integration is 'low/no integration' (only some stakeholders saw a medium level of integration).

Annex 4 provides a more in-depth analysis of sustainable finance trends in Europe.

Taken together, the evidence above demonstrates that relevant entities lack incentives to consider ESG factors. This lack is fuelled by an absence of clarity and coherence in EU legislation and other possible determinants as discussed in Section 2.2.2 and Annex 6.

Generally speaking, the problems described above directly affect all relevant entities and end-investors and any improvements would require changes in their behaviour. For *relevant entities* this could imply changing the way they execute their duties towards investors/beneficiaries, integrate ESG factors and disclose such information. *Providers of investment advice* might have a stronger incentive to incorporate ESG factors in their advice as ESG concerns become more part of industry practices. *End-investors* could adapt their investment behaviour in order to have a more comprehensive integration of ESG factors when making investment decisions.

Figure 4: Problem tree



2.2. What are the problem drivers?

As mentioned above, three drivers are directly relevant for the initiatives which this impact assessment supports, and are described in greater detail below.

2.2.1. Lack of clarity and coherence regarding the consideration of ESG factors in the investment and advisory process as part of the duties towards investors/beneficiaries (Driver 1)

The lack of incentives for relevant entities to consider ESG factors is related to several concerns, but the lack of clarity and coherence in EU legislation is a key factor. In the public consultation (EC, 2016b), institutional investors and other stakeholders reported that duties towards investors and beneficiaries —as they are articulated in the relevant financial legislation— are not sufficiently clear on how they have to consider financially material risks stemming from sustainability factors. More generally, stakeholders also indicated that they would welcome clarification regarding the fact that the integration of ESG factors in the investment process fits with their duties towards investors and beneficiaries. This uncertainty has also spurred considerable debate in the academic literature,[24] indicating that without a sufficiently explicit legal framework, the integration of ESG factors under the duties toward investors and beneficiaries is often not straightforward.

The current EU legislative framework does not prevent relevant entities from integrating ESG factors. However, the high-level nature of the relevant provisions contributes to a heterogeneous implementation.[25] As mentioned before, relevant entities are required to act with care, loyalty and diligence and in the best interest of their investors and beneficiaries, but practically none of the (sectoral) legal frameworks explicitly requires relevant entities to consider ESG factors in their investment decisions.

There is a lack of coherence in the obligations regarding duties towards investors and beneficiaries across sectors. Only IORP II explicitly states that occupational pension funds should consider ESG factors in their investment decisions, governance and risk management systems.[26] In addition, entities subject to the IORP Directive have to disclose how ESG factors are taken into account in their investment policy. For entities in other sectors there are no explicitly pre-scribed requirements.

ESG preferences are insufficiently considered in the advisory process.[27] The

[24] See, among others, Berry (2015), Sandberg (2011), Martin (2009).

[25] For example, while MiFID II requires investment firms to "act honestly, fairly and professionally in accordance with the best interests of its clients", the AIFM Directive states that "… the AIFM [Alternative Investment Fund Manager] act honestly, with due skill, care and diligence and fairly in conducting their activities.". The UCITS Directive indicates that "acts with due skill, care and diligence, in the best interests of the UCITS it manages …". In addition, Solvency II mentions that insurers invest their assets in a prudent manner and that they, or the entity that manages their assets, should ensure that these investments are made in the best interest of all policyholders and beneficiaries taking into account any stated policy objective.

[26] Other pieces of EU legislation which lay down disclosure obligations on ESG factors are the PRIIPs Regulation, and the Commission's proposal for a PEPP Regulation and the Prospectus Directive.

[27] In view of the complexity of the investment decision and the prevailing low levels of financial literacy (see, e.g. Klapper et al., 2015), investment advice is important for many retail investors to arrive at their

assessment of suitability under MiFID II[28] and IDD[29] does not foresee that information on non-financial objectives and preferences is gathered by investment advisors. Investment advice typically consists of two elements: (i) client profiling to understand a client's risk preference, investment objectives, financial situation and investment experience; and (ii) product selection in order to assure that the final investment products recommended to the client are in line with the client's profiling. In practice, product selection appears to be primarily driven by a client's risk profile, but ESG preferences are not systematically assessed. Suitability assessment questionnaires appear not to include questions on ESG preferences: a sampling of 19 questionnaires of mainstream retailers in five EU countries (France, Germany, Italy, Spain, and the United Kingdom) revealed that none of them contained questions on non-financial objectives and preferences. **Overall, it might therefore be difficult for a client to communicate their ESG expectations clearly as they are not integrated in the client profiling and product selection process.**[30] At the same time, investors are not sufficiently aware of ESG risks to enable them to raise their ESG expectations on their own.

In the public consultation (EC 2018b), end-investors also argued that inadequate consultation of retail investors and beneficiaries could lead to a misunderstanding of what constitutes "the best interests" of end-investors. A large majority of overall respondents think that insurance and pension providers should consult their beneficiaries on an annual/periodic basis with respect to their sustainability preferences. However, a majority of pension funds and insurance companies do not agree with this statement, mainly because of the lack of in-house expertise on sustainability factors and the potential costs to train their employees in this area. On the side of asset managers, a majority of respondents do agree with the approach.

Intermediaries might also shy away from raising ESG concerns themselves as there is doubt that commercial and marketing incentives would support the sale of ESG products (2Dii 2017). In the same spirit, anecdotal evidence from the Commission consultation (EC 2018b) mentioned that investment advisors refrained from discussing sustainability topics as it increased the complexity of their advisory work, whilst incentives to raise ESG issues were perceived to be low.

Overall, the evidence also points to a regulatory failure in terms of implementation regarding the consideration of ESG preferences/factors in the investment and advisory process. The analysis of current regulatory and market practice leads some stakeholders to conclude that the consideration of environmental objectives in the advisory process should be made mandatory (2Dii, 2017). In line with this, some respondents in the recent Commission public consultation (EC, 2018b) also called for more guidance by regulatory authorities in view of the complexity of the advisory process.

In addition, as part of their duties towards investors/beneficiaries, benchmarks used by asset managers and investors to track/measure the performance of a fund/portfolio should be appropriate and reflect the clients' investment style in accordance with their investment recommendation/investment mandate. In this regard, **existing low-carbon**

investment decision.

[28] See MiFID II Directive 2014/65/EU Article 25-2 and Articles 54 and 55 of the Delegated Regulation (EUU) 2017/565.

[29] See IDD Directive 2016/97 Article 30 and article 9 of the Delegated Regulation 2017/2358.

[30] See among others Natixis (2017) and Morgan Stanley (2017).

benchmarks are not always appropriate neither for a passive investment strategy nor as a performance benchmark for an active low-carbon investment strategy. They cannot always be used as an objective tool to evaluate to what extent a low-carbon investment strategy pursues a low-carbon investment style during the lifecycle of an investment mandate. Asset managers who responded to a targeted consultation *(see Annex 2 for more details)* explained that they currently do not use a low-carbon index because they believe that: (i) the current methodologies do not reflect all sources of CO2 emissions; (ii) their clients (investors) have no confidence in the methodology employed by available low-carbon indices; and (iii) low-carbon indices reflecting their investment approach and style are missing. In addition, the level of disclosure on the benchmark an asset manager uses to assess the portfolio/fund performance is insufficient, especially as regards if and to which extent this benchmark is aligned with the sustainability objectives that the manager pursues.

Box 3: Low-carbon benchmarks

Benchmarks play a central role in measuring the performance of investments consisting of traded assets. Several respondents to the stakeholder consultation on the HLEG's interim report (2017a) mentioned that indices and performance benchmarks are **a key lever to best align the investment and analyst community with long-term sustainability considerations and the transition towards a low-carbon economy**.

Since conventional benchmarks do not reflect low-carbon considerations in their methodologies and are not appropriate to measure the performance of sustainable investment strategies, over the past decade, index providers (such as MSCI, Euronext, FTSE-Russell, STOXX, S&P) have designed hundreds of ESG and low-carbon benchmarks in order to capture sustainable and climate-related goals and respond to the growing demand from investors to invest in sustainable companies and projects and thus accelerate the transition to a low-carbon economy. However, while the supply is there, these benchmarks lack reliability and standardisation. The lack of harmonisation of the methodologies (especially the lack of consensus on how comprehensive the assessment of a carbon footprint should be) has affected the low-carbon indices' comparability and reliability. Some asset managers explained, in the targeted consultation, that methodologies employed by currently available low-carbon indices do not adequately reflect all sources of CO2 emissions for the calculation of the carbon footprint of the index components. Therefore, the current use of low-carbon indices raises various concerns from an investor-protection perspective.

Acceptance by the market has thus been limited - **in February 2018, only 4 out of the 59 funds marketed as low-carbon/climate funds used a low-carbon benchmark** (Morningstar data on funds registered for sale in the EU as of February 2018). Furthermore, the performance of the majority of funds (41 out of 59 funds) **is still assessed against a conventional benchmark** which is not appropriate to reflect low-carbon investment strategies. The latter is likely a result of benchmark providers generally using 'decarbonised' standard market cap indices by re-weighting portfolios based on the 'carbon intensity' of issuers included in the benchmark.

Finally, the benchmarks currently provided by the market do not align with the objective of limiting global warming to below 2°C pursuant to the Paris Agreement as decarbonisation of standard benchmarks is expected to result in temperatures rising by 4 to 6°C.

Based on relevant literature and stakeholders' views expressed in public consultations, other major obstacles to considering ESG factors as part of the duties towards investors and beneficiaries are: (i) possible heterogeneity of beneficiaries' ESG preferences; (ii) lack of reliable and comparable ESG information; (iii) lack of data and tools to analyse ESG risks; and (iv) the impact on costs and risk-adjusted performance. A discussion of

these factors is provided in Annex 6.

2.2.2. Lack of ESG disclosure requirements for institutional investors, asset managers and investment advisors (Driver 2)

Information disclosed by relevant entities does not allow end-investors to assess how relevant entities consider ESG factors in their investment and advisory process. This lack of transparency follows from the fact that this kind of information is not very detailed or easily accessible for end-investors or is not comparable. End-investors may thus have insufficient elements to make informed investment decisions. Indeed, as suggested in the HLEG's final report (2018), a lack of consistent information hinders investors and others from considering ESG-related issues. End-investors can only make an informed sustainable investment choice if they can assess both the financial characteristics and ESG features of a financial product. The existing ESG-related information is not sufficient for a sustainability assessment of their investment, nor are existing rules considered to be sufficient to address this issue (Nilsson et al. 2010).

Although the feedback from the public consultation (EC, 2018b) indicates that the availability of ESG-related information has improved recently, it also shows that there is still ample scope to further improve the quality and quantity of ESG information. In this respect, the majority of respondents argued that, to guarantee transparency, relevant entities should disclose how they consider sustainability factors within their investment process. According to respondents, more disclosure is required to identify whether risks stemming from sustainability issues are properly addressed, as well as to ensure that investors' ESG preferences are reflected in the investment and advisory process. They suggested that this information should be disclosed in semi-annual/annual reports and in pre-contractual information documents. Websites and, to a lesser extent, marketing materials were mentioned as other useful means of disclosure.

There is also a lack of coherence in the prevailing national legal obligations on ESG disclosures. The various national legal obligations regarding Socially Responsible Investments (SRI) and ESG disclosures for a selected group of Member States are summarised in Table 1. The table shows large differences. Firstly, countries like Austria, Luxembourg, Portugal and Sweden have no legal obligations for any of the institutional investors or asset managers. A second group of countries only regulates one of the relevant groups. Given that pension funds generally have long-term investment policies, for which ESG risks are more relevant, pension funds seem to be a natural first choice to impose ESG disclosure requirements. A third group of countries, like France, Denmark and Italy impose disclosure measures for all entities. Although countries like France and Denmark impose the same disclosure rules for different entities, the cross-country variations in disclosure requirements remain. Yet, it should be noted that IORP II requires Member States to ensure that entities subject to the Directive disclose the relevance and materiality of ESG factors. As the transposition deadline is January 2019, not all Member States will have necessarily implemented those rules already.

Table 1: SRI and ESG disclosure – Legal obligation for institutional investors and asset managers in selected Member States

	Pension Funds (IORP)[31]	Insurance companies	Asset managers

[31] Note that the transposition deadline for IORP II is January 2019.

AT	/	/	/
BE	/	/	Clarify to what extent ESG factors are taken into account in the implementation of their investment policy
DK	Report their responsible investment policy annually	Report their responsible investment policy annually	Report their responsible investment policy annually
FR	Describe how ESG factors are taken into account in their investment policy	Describe how ESG factors are taken into account in their investment policy	Describe how ESG factors are taken into account in their investment policy
DE	Inform investors on whether and how ethical, social and environmental concerns have been considered	/	/
IT	Report and disclose to what extent ESG criteria are adopted in the management of assets	For financial products labelled as "ethic" or "socially responsible" investors to be informed on how those qualifications affected their investment choice	For financial products labelled as "ethic" or "socially responsible" investors to be informed on how those qualifications affected their investment choice
LU	/	/	/
NL	Be transparent about their responsible investment strategies	/	/
PT	/	/	/
ES	Disclose whether or not, and how, ESG factors have been taken into account in their investments policies – Disclose extra-financial risks	/	/
SE	/	/	/ (*)
UK	Include in the Statement of Investment Principles (SIP) to what extent they take into account ESG factors	/	/ (**)

Source: EFAMA (2016)

(*) No specific legal obligation but self-regulation: Swedish Investment Fund Association Guidelines covering transparency and comparability of asset managers dealing with sustainability issues.

(**) No specific legal obligation but asset manager should disclose how it delivers stewardship responsibilities on behalf of its clients (UK Stewardship Code).

2.2.3. Lack of clarity on what constitutes sustainable economic activities (Driver 3)

While there is a consensus on what falls under each of the broad ESG concepts (see

Figure 1 in section 1.2.), such high-level consensus is however not sufficient to increase investments into sustainable economic activities. In the recent public consultation (EC 2018b), stakeholders indicated that there are too many standards without a single, commonly-accepted framework.

Clarity is needed on the conditions that economic activities need to fulfil in order to qualify as positively contributing towards sustainability. However, at present, a coherent and uniform classification system of what constitutes a sustainable economic activity, for the purposes of sustainable investment, does not exist at EU level.[32] A number of market-based practices or market-led initiatives have emerged in recent years.[33] These, however, are not always comprehensive and do not necessarily reflect all the EU's environmental and sustainability priorities. At Member State level, some EU countries have built on these market initiatives to develop classifications for climate-related or environmental economic activities, to serve as a basis for national standards and labels.[34]

This parallel development of market-based and national practices is likely to give rise to divergent classifications, also because these kinds of initiatives are pursuing a specific national policy agenda, are targeting only particular topics, or are based on commercially-driven priorities. In turn, this fragmentation can confuse investors, especially retail investors who would like to invest into sustainable or 'green' activities, but are faced with financial products that are based on divergent criteria as to what qualifies as a green activity. If the activities classified as green in one Member State are different from the activities classified as green in another Member State, consumers face difficulties in comparing and understanding the cross-border differences between green financial products. Therefore, they will be discouraged from investing into these kinds of assets across borders, hindering cross-border sustainable investment.[35]

Moreover, the coexistence of diverging classifications of economic activities with varying scopes and based on different criteria and metrics also leaves room for greenwashing. Greenwashing refers to the practice of marketing financial products as green or sustainable, when in fact they do not meet basic environmental standards. This phenomenon can have a direct negative effect on the functioning of the internal market for the following reasons: It can undermine investor confidence in the concept of sustainable investment and, greenwashing can result in unfair competitive advantage.

Box 4: Existing taxonomies and national financial labels

[32] See Annex 7 for a general overview of related initiatives. In summary, these initiatives tend to differ along several dimensions, including process or the desired impact; however, they indicate that there is a strong interest for increased calibration and awareness.

[33] For example, the Climate Bonds Initiative (CBI)'s classification system for climate/green bond issuances or European Investment Bank (EIB) own classification system of eligible activities/investments for climate change mitigation used for EIB's project finance and lending operations.

[34] A taxonomy is for instance used in France in the context of its Energy Transition Law and the TEEC label.

[35] Although mapping the differences between classification systems could alleviate some of the uncertainty regarding how assets are classified in the various systems, it appears to be insufficient to act as a catalyst.

An overview of existing market-led initiatives and of taxonomies used at the national level in the field of environment and climate provides a useful illustration of the variety of classifications that currently coexist across the EU, leaving room for the potential risks of growing inconsistencies and market fragmentation in the future.

Currently, three taxonomies are being used as the basis for existing national eco-labelling initiatives. These are the **Climate Bonds Taxonomy**, produced by the Climate Bonds Initiative (**CBI**) to notably certify climate and green bond issuances, the **Common Principles for Climate Change Mitigation and Adaptation Finance Tracking**, produced by the International Development Finance Club (**IDFC**) and a number of Multi-lateral Development Banks for their lending to climate-related investments, and the **Green Bond Principles**, produced by the International Capital Markets Association (**ICMA**).

Of the **five** existing **national labelling schemes**, four are based on one of the above taxonomies:

- The TEEC Label (**France**) and the FNG Siegel (**Germany**) are based on the **CBI taxonomy**
- The Luxflag Climate Finance Label (**Luxemburg**) is based on the **IDFC taxonomy**
- The **Nordic** Swan Ecolabel is based on **ICMA's Green Bond Principles**

The Austrian Ecolabel only specifies exclusion criteria but does not stipulate the use of a specific taxonomy.

In each case the taxonomies have been adjusted to reflect national priorities, as well as having been narrowed down or made more granular for certain sectors. Using the French case as an example, the taxonomy used for the TEEC label is based on that of the CBI, with a few amendments to take account of the considerations of the stakeholders consulted and national public policy guidelines. Among others, certain activities that appear in the CBI taxonomy have been excluded from the TEEC label taxonomy, or, in some cases, descriptions of certain activities appearing in the CBI taxonomy have been specified in the French example.

2.2.4. Out-of-scope drivers

The problems that are central to this initiative are also influenced by other factors, such as: (i) the lack of readily available and comparable ESG information by firms and (ii) short-termism. These factors are considered to be out-of-scope as they are related to a broader structural issue (i.e. short-termism is an issue that goes beyond sustainability concerns and that is embedded in investment industry practices) or focus on the behavior of firms that surpasses this initiative's scope. In addition, they are/will also be addressed via other initiatives of the Commission, as reflected in the Commission's Action Plan.[36]

[36] European Commission (2018a). *Regarding short-termism*, the Commission invites the ESAs, and more specifically ESMA, to collect evidence of undue short-term pressure from capital markets on corporations by Q1 2019 and to consider, if necessary, further steps based on such evidence. *Regarding non-financial information*, the Commission will revise by Q2 2019 the guidelines on non-financial information. Building on the metrics developed by the expert group, the revised guidelines should provide further guidance to companies on how to disclose climate-related information, in line with the Financial Stability Board's Task Force on Climate-related Financial Disclosure (TCFD) and the climate-related metrics developed under the new classification system. Subsequently, the guidelines will be amended to include other environmental and social factors.

2.3. Consequences of the problem and how will they evolve?

The lack of incentives to consider ESG factors in the investment decision will persist, even though, the problem is likely to become less prominent over time. Although the consideration of ESG factors by the industry currently remains moderate, the inclusion of sustainability factors in the investment decision process is likely to increase, but only at a slow pace. A growing number of relevant entities believe that integrating ESG factors is consistent with their responsibilities towards investors/beneficiaries, reflecting the trend towards further ESG integration as discussed in section 2.1. The evidence in Box 2 showed that the number of respondents considering environmental factors increased by 8% over the period 2015-2018. At the corresponding compound annual growth rate of 3.9%, it would take more than 10 years before 75% of the industry would consider environmental factors in their investment decisions.

Even if this trend continues, national initiatives will not lead to a coherent and comprehensive approach. While a few Member States[37] already require institutional investors and asset managers to consider ESG factors in their investment decisions, most Member States have not taken any action in this area (EC, 2015). If other Member States decide to do so in the future, this is likely to result in different approaches across the EU. The coexistence of heterogeneous approaches is likely to increase market fragmentation, limit transparency for end-investors, and ultimately hamper capital flows towards the achievement of EU sustainability objectives.

Similarly, no significant change is expected with regard to the integration of ESG factors in the advisory process. Although investors might become more aware of sustainability concerns over time and raise them in the advisory process, it is unlikely that this would lead to a significant change if the need for ESG integration is not structurally embedded in the advisory process.

High search costs for end-investors will largely persist, as information on the inclusion of ESG factors in the investment decision and advisory process will depend on national rules in Member States and/or on voluntary disclosure by the relevant entities. Although increased awareness from investors regarding the relevance of ESG factors and the reputational benefits of (voluntary) communication on ESG integration may lead to enhanced disclosure by relevant entities, the information is likely to remain high-level and not harmonised. Transparency will remain limited, and this will hinder end-investors' ability to compare the ESG features of different investments and choose appropriate investment products to pursue their ESG/climate-related strategy**.**

In addition, the ambiguity regarding what can be considered a sustainable economic activity, is expected to persist. As explained in the baseline scenario (Section 5.1), market-based or marked-led initiatives[38] with different scopes are likely to be further developed and compete with classifications developed by public bodies in the future (e.g. the EIB).Without EU action, no coherent and univocal classification system on sustainable economic activities for the purposes of sustainable investment in the medium to long-term will emerge.[39] For investors that intend to invest in sustainable economic

[37] See, e.g. the French Energy Transition Law.
[38] See for instance the classification system for climate/green bond issuances as developed by the Climate Bond Initiative (CBI).
[39] Member States might also create their own classifications of sustainable activities to facilitate sustainable investments. However, these would be based on national (environmental) priorities and contribute to

activities it will thus remain difficult to identify such assets in a consistent fashion. Overall, this is likely to limit the possibility of redirecting capital flows towards sustainability goals and to close, among others, the investment gap to achieve the EU's sustainability objectives.

Similarly, the same conclusions can be applied to the tools available for investors to support the development of sustainable finance. Different categories of low-carbon indices with various degrees of ambition have emerged in the marketplace. Despite the differences in objective and strategy, all of these benchmarks are commonly promoted under the uniform denomination of low-carbon benchmarks. Those divergent approaches to benchmark construction would result in fragmentation of the market since users of benchmarks would not have clarity on whether a particular low-carbon index would be considered merely as a decarbonised version of a standard market capitalisation benchmark or as a benchmark aligned to the 2°C global temperature target of the Paris Agreement (*see Box 3*). Without EU action, **low-carbon benchmarks will still not be objective nor appropriate for investors who would like to pursue a low-carbon strategy that aligns with the goal of limiting global warming to below 2°C.** Thus, they will not sufficiently contribute to the urgent shift towards a highly energy-efficient, low-carbon economy. In addition, due to the lack of transparency and existing discrepancies between the methodologies of low-carbon benchmarks, investors will have no objective tool nor sufficient information to assess if the investment strategy of a fund/portfolio is consistent with the benchmark used.

In turn, the trends described above would not sufficiently curtail the documented behavioural biases in the investment and advisory process: distortions in the investment decision process and savings allocation (FCA 2016) might be somewhat smoothed out, but they will persist. It should be noted that certain pieces of recent EU legislation that integrate ESG dimensions could alleviate some of the behavioural biases.[40]

Putting things into a larger perspective, insufficient ESG integration and lack of clarity as to what constitutes a sustainable economic activity is also a hurdle for

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additional fragmentation across the EU. Over time, this fragmentation will likely further increase as national views become entrenched and national legislations can be expected to evolve from principles-based guidelines to detailed provisions.

[40] This is notably the case for: (i) the Regulation (EU) 2015/760 on European long-term investment funds; (ii) IORP II, in which ESG considerations were integrated in the investment process and disclosure; (iii) the revised Shareholder Rights Directive, which highlights the importance of the significant engagement of institutional investors in corporate governance promoting long-termism in the asset management industry and ESG improvements; (iv) the directive on disclosure of non-financial and diversity information by certain large undertakings and groups (NFID), which acknowledges the importance of providing easy access to non- financial information to understand business behaviour in relation to ESG factors; and (v) the Delegated Act on the content of the Prospectus, which will require more ESG-related information for green bond issuances.

Note that for the purpose of this IA, no evaluation of the relevant legislation was performed. The reasons for not undertaking an evaluation can be summarized as follows. *As regards taxonomy*, given that there currently is no EU classification of activities in terms of their sustainability, no framework can be evaluated. As regards *integration of ESG factors* in the investment and advisory process by the relevant entities and *disclosure* to beneficiaries, EU legislation does not currently specify them for asset managers and institutional investors (except for institutions for occupational retirement provision, but with the implementation of the related rules – IORP II - starting only in January 2019), relevant provisions cannot be evaluated. A*s regards the low-carbon benchmark*, there is currently no methodology developed at EU level.

directing capital flows towards sustainable investments: too high search costs, and a lack of awareness regarding ESG will result in an untapped pool of money that is not directed towards sustainable investment. Improvements in this area are likely to result in additional flows to such investments through: (i) the attraction of new sustainable investments; and by means of (ii) the rebalancing of existing portfolios towards sustainable investments.

Although the exact impact is difficult to quantify, even small changes will be economically significant. Given the important role of the asset management industry in financing the economy, the industry will also play an important function in contributing to the EU sustainable objectives. Based on EFAMA estimates, the asset management industry in Europe had EUR 22.8 trillion of total assets under management in 2016 and attracted EUR 300 billion in new investments (EFAMA 2017). Hence a 0.5% shift towards sustainable investments due to the rebalancing of existing portfolios and the attraction of new flows would increase the amount of sustainable assets by EUR 115.5 billion. Similarly, the insurance sector in Europe in 2016 had approximately EUR 10 trillion of total assets invested. A shift of only 0.5% in the allocation of its investments towards sustainable investments, either through rebalancing or through directing new premiums towards these investments would increase these investments by EUR 50 billion.

III. WHY SHOULD THE EU ACT?

3.1. Legal bases

Article 114 of the Treaty on the Functioning of the European Union (TFEU) confers the European Parliament and the Council the competence to adopt measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market. Article 114 TFEU allows the EU to take measures not only to eliminate current obstacles to the exercise of the fundamental freedoms, but also to prevent the emergence of such obstacles, including those that make it difficult for economic operators, including investors, to take full advantage of the benefits of the internal market. Thus, Article 114 of the TFEU gives the EU the right to act since, in line with the problem definition outlined in section 2, the options that will be assessed by this impact assessment will aim at (i) ensuring a more uniform approach in the way relevant entities consider ESG factors in the investment and advisory process, and (ii) reducing the search costs of end-investors regarding what are sustainable economic activities and the extent to which ESG factors are integrated in investment decisions.

More specifically, the lack of clarity and coherence in EU legislation regarding the consideration of ESG factors in the investment and advisory process as part of the duties towards investors/beneficiaries (driver 1) results in a heterogeneous implementation of these duties across the EU. At EU level, the duties towards investors and the obligations in the advisory process are set out in the AIFMD Directive 2011/61/EU, the UCITS Directive 2009/65/EC, the MiFID II Directive 2014/65/EU, the Solvency II Directive 2009/138/EC, and the Directive on Insurance Distribution 2016/97/EU. The legal bases for the EU to act are provided and delineated by these directives, which require delegated acts to be adopted in specified areas to ensure that the obligations set out in the directives are implemented in a consistent way across the EU. As the IORPs II Directive 2016/2341, based on Articles 53, 62 and 114(1) TFEU, currently does not require adoption of delegated acts in these specified areas, it will have to be amended. This impact assessment, when analysing concrete options to provide more uniform conditions

on the integration of ESG factors in the investment and advisory process, considers the extent to which harmonisation is necessary, always with the principles of subsidiarity and proportionality in mind and with the objective of ensuring cross-sectoral consistency.

The lack of ESG disclosure requirements on institutional investors, asset managers and investment advisors on the integration of ESG factors (driver 2) and the lack of disclosures on exposures to sustainability objectives as well as the lack of coherence in the prevailing national legal obligations in these regards result in insufficient and inconsistent information – and therefore not comparable – information for end-investors. This is detrimental to the functioning of the single market. Several EU financial services Directives would therefore require amendments. In consequence, the legal bases for the EU to act are: (i) Article 53(1) TFEU for amendments to the UCITS Directive 2009/65/EC, the AIFMD Directive 2011/61/EU and the MiFID II Directive 2014/65/EU; (ii) Articles 53(1) and 62 TFEU for amendments to the Solvency II Directive 2009/138/EC; (iii) Articles 53, 62 and 114(1) TFEU for amendments to the IORP II Directive 2016/2341; and (iv) Article 114 TFEU for amendments to Regulations 345/2013 on European venture capital funds and 346/2013 on European social entrepreneurship funds.

The lack of clarity on what constitutes a sustainable economic activity (driver 3) is explained by current divergences at national level in the classification systems and criteria used to define sustainable economic activities. This fragmentation hampers the proper functioning of the internal market in the context of sustainable investments. Article 3(3) of the TFEU says: "*The Union shall establish an internal market. It shall work for the sustainable development of Europe* […] *and a high level of protection and improvement of the quality of the environment.*" Article 114 of the TFEU gives the EU the legal basis to address this fragmentation, adding that proposals that concern environmental protection and consumer protection have to take as a base a high level of protection. Taxonomies put forward by private initiatives do not offer a suitable and uniform basis for measures aimed at incentivising sustainable investment. This is visible in the French example, with the TEEC label employing a taxonomy that diverges from existing market-led classifications.

Different categories of low-carbon indices with various degrees of ambition have emerged in the marketplace. While some benchmarks are content with lowering the carbon footprint of a standard investment portfolio (the 'decarbonised benchmarks'), others aim to select only components that make a contribution to the attainment of the 2° objective set out in the Paris Agreement (the 'positive carbon impact benchmarks'). Despite the differences in objective and strategy, all these benchmarks are commonly promoted under the uniform denomination of low-carbon benchmarks. The lack of minimum standards for low-carbon benchmarks and the use of a uniform denomination of low-carbon benchmarks result in inappropriate tools for institutional investors and asset managers to reflect their low-carbon investment strategies. In order to ensure the proper functioning of the internal market and ensure a high level of consumer and investor protection, it is appropriate to lay down a regulatory framework for low-carbon benchmarks at Union level. Article 114 of the TFEU gives the EU the legal basis to address the fragmentation of the methodologies of low-carbon benchmarks by modifying the Benchmark Regulation.

In addition, the lack of publicly available information on the extent to which the methodology of those benchmarks administrators takes into account ESG objectives prevents end-investors from assessing the consistency in terms of sustainability between

the benchmark and the portfolio. In consequence, the legal basis for the EU to act is Article 53(1) TFEU for amendments to the UCITS Directive 2009/65/EC and the MiFID II Directive 2014/65/EU.

3.2. Subsidiarity: Necessity of EU action

The problems and their drivers, as identified in section 2, could possibly be addressed through individual action by Member States. Nevertheless, individual action by Member States is likely to only partially address the identified issues (notably because some Member States may legislate, while others would not) and create additional fragmentation due to diverging regulatory approaches.

Asset managers, insurance companies, pension funds, portfolio managers and investment advisers are largely working across borders in the EU. Therefore legislation applying to those market players is largely harmonised at EU level. Action at EU level as regards investors' duties and transparency towards end-investors is thus warranted in order to ensure coherence and to further improve the functioning of the single market. More specifically, while EU legislation already defines 'fiduciary obligations' of asset managers, institutional investors and investment advisors and disclosure requirements at EU level, the interpretation of these requirements as regards sustainability factors leaves large flexibility in terms of implementation. Specification of these requirements is warranted to avoid fragmentation, inconsistency and unpredictability in the functioning of the internal market. It would also help prevent an uneven playing field and multiplying compliance costs for an industry, which is largely working across borders.

Responses to the public consultation on investors' duties largely support an intervention at EU level. The exact interpretation of 'duty' or 'duties' differs among EU jurisdictions for various reasons, including different legal traditions, cultural understanding and approaches taken in this area. Therefore, several stakeholders called for legislation at EU level, which embeds this duty in law and provides clarity to relevant entities. They recommended that the EU introduces legislation which requires integration and disclosure of sustainability factors in the investment and advisory process.

The existing lack of clarity on what constitutes a sustainable economic activity could be exacerbated by parallel and uncoordinated attempts by Member States in that field. Given the commitments to environmental and climate policy goals, both at international (e.g. Paris Agreement) and at Union level, it is very likely that in the future more Member States will explore the option of setting up labels for sustainable financial products, for which they would use self-tailored, divergent taxonomies. This means that in the future, the cross-border barriers to the functioning of capital markets for the purpose of raising funds for sustainable projects will grow further: The multiplication of classification systems would increase market fragmentation and raise competition issues, making it more difficult and costly for investors to understand what is considered a sustainable investment. The criteria or classification of what constitutes a sustainable activity for the purposes of investment should therefore be harmonised at Union level. This would make it easier for economic operators to attract capital across the Union for sustainable investments. It would also constitute a first step towards addressing greenwashing and help investors identify more easily which criteria were used to deem a financial product 'green' or sustainable.

The vast majority of stakeholders consulted on the introduction of an EU classification

system for the purposes of identifying sustainable economic activities saw the need for regulatory intervention at EU level as opposed to letting national or market-led initiatives shape these classification systems. These respondents also considered that a sustainable classification system at EU level would be helpful to fulfil their investors' duties and take into account ESG factors in their investment decision process. A common classification system is thus needed not only to empower the EU to accurately measure and track progress towards the achievement of its policy objectives, but also to allow market participants to reap the benefits offered by a single market for sustainable investment, and increase capital flows towards sustainable investments, when addressing barriers to cross-border investment in sustainable economic activities.

In a similar manner, the lack of minimum standards and requirements regarding methodologies for designing sustainable (and in particular low-carbon) benchmarks results in confusion among benchmark users and end-investors, preventing them from fully benefiting from the single market. In order to address potential instances of greenwashing, Member States are likely to adopt different rules that would help avoid ambiguity regarding the aims and targeted impact underpinning different categories of low-carbon indices. In the absence of a framework providing minimum standards that ensure the accuracy and integrity of the main categories of low-carbon benchmarks, it is likely that differences in Member States' approaches would create obstacles to the smooth functioning of the internal market (for the provision of low-carbon indices that serve as low-carbon performance benchmarks). The majority of respondents to a targeted consultation on benchmarks thought that some harmonisation of the methodology for correctly assessing carbon emissions is needed at European level as it would support the development of reliable low-carbon indices to assess/track the performance of European low-carbon financial products. Half of them also believe that a harmonised EU approach would increase the use of low-carbon indices and, as a result, the supply of low-carbon investment strategies.

3.3. Subsidiarity: Added value of EU action

Several Member States already require in their legislation on duties towards investors/beneficiaries that ESG factors are integrated/considered (*see section 2.3*). However, most Member States have still not taken action. Legislation at EU level would therefore create a **level playing field** and help prevent divergence between Member States.

As regards a classification system to define what constitutes sustainable economic activities, it will be more effective for the EU to adapt its legislative framework at an earlier stage, before other Member States start to develop national legislation in this area. It would also limit greenwashing risks, assist consumers in identifying sustainable economic activities for the purposes of investment, and facilitate cross-border sustainable investments. The variety of potential uses of a sustainability classification system developed at EU level further demonstrates the added value of EU level intervention (*see also Box 5 in section 5.6.1.*).

Due to the fact that many asset managers, insurance companies, pension funds, portfolio managers and investment advisors already work at an EU if not global level, action at EU level will provide **economies of scale**, compared to a scenario where investors would face: (i) different interpretations of duties towards investors/beneficiaries, and disclosure obligations as regards ESG throughout the Member States, (ii) different classification systems, and (iii) inconsistent methodologies for building low-carbon benchmarks.

IV. OBJECTIVES: WHAT IS TO BE ACHIEVED?

4.1. General objectives

The general objectives of the initiatives supported by this impact assessment correspond to the three overarching goals of the Commission Action Plan on Financing Sustainable Growth. In particular, these initiatives aim to directly contribute to the Action Plan's goals of (i) managing financial risks stemming from climate change, resource depletion, environmental degradation and social issues; and (ii) fostering transparency. They are to do so by addressing the two main problems identified in section 2: (a) high search costs for end-investors to identify what are sustainable economic activities and to which extent ESG factors are integrated in investment decisions, and (b) the lack of incentives for relevant entities to consider ESG factors in the investment and advisory process.

Increased transparency and reduced search costs will create a more favourable investment environment, where investors can make sustainable investment decisions more easily. As a result, once additional building blocks will be put in place,[41] the proposed initiatives will also help reorient capital flows towards achieving sustainable growth. The magnitude of the reoriented capital flows will depend on the actual demand for sustainable products among investors operating in this more favourable environment, and on the implementation of the various initiatives supported by this impact assessment. Therefore, the impact on investment flows will be assessed at a later stage, as explained in Section 5 below.

4.2. Specific objectives

These general objectives translate into three specific objectives, which address the problem drivers described above, as reflected in the table below:

1. ensure clarity and a coherent approach across sectors and Member States as regards the integration of ESG factors by the relevant entities in their investment/advisory process;
2. increase transparency towards end-investors by improving ESG-related disclosure requirements;
3. provide clarity at EU level on what are sustainable economic activities.

Table 2: Objectives and underlying problem drivers

Problems	*Objectives*
Lack of incentives for relevant entities to consider ESG factors and high search costs for end-investors leading to:	**General Objectives:**
1. Non-financial material risks not being mainstreamed into investment decisions;	1. Mainstreaming financial risks stemming from sustainability issues;
2. Transparency in financial activity on sustainability remaining limited; and	2. Fostering transparency in financial and economic activity on sustainability.
3. Capital flows towards sustainable	3. Reorienting capital flows towards

[41] See Section 6.1 for further details on the nature and the sequencing of the various elements of the proposed initiatives.

investments remaining limited, leaving the investment gap to achieve EU sustainability objectives not to be closed.	sustainable investments.
Problem driver 1: Lack of clarity and coherence regarding the consideration of ESG factors in the investment and advisory process.	**Specific objective 1:** Ensure clarity and a coherent approach across sectors and Member States as regards the integration of ESG factors by relevant entities in their investment/advisory process.
Problem driver 2: Lack of ESG disclosure requirements for institutional investors, asset managers and investment advisors.	**Specific objective 2:** Increase transparency towards end-investors by improving ESG-related disclosure requirements.
Problem driver 3: Lack of clarity on what are sustainable economic activities.	**Specific objective 3:** Provide clarity at EU level on what are sustainable economic activities.

V. WHAT ARE THE AVAILABLE POLICY OPTIONS, WHAT IS THEIR IMPACT AND HOW DO THEY COMPARE?

5.1. What is the baseline from which options are assessed?

As explained in Section 1, in its Action Plan on Financing Sustainable Growth, the Commission has put forward ten actions, some of which are supported by this impact assessment. As indicated in the Action Plan, the preferred approach to develop those actions will draw on the outcome of the present assessment. Hence, the baseline scenario takes as a starting point the possibility of not acting at EU level.

The potential initiatives described in the Action Plan are part of a comprehensive EU package of measures to carry out the EU's climate and sustainable development agenda, in line with the UN 2030 Sustainable Development Goals and the Paris Climate Agreement. Other measures — such as EU energy and climate policy under the Energy Union Strategy or the environmental policy acquis — do not explicitly focus on the financing aspect. Finance as a catalyst for progress towards a greener economy is currently under-exploited, and limited progress is normally expected within this area in the short-term, even though access to finance is widely considered a key pre-requisite to ensure compliance with environmental and climate objectives. This situation was also acknowledged by the explicit call for targeted action from the High-Level Expert Group.

Under the baseline scenario, no policy action would be taken to encourage the consideration of ESG factors by institutional investors, asset managers and investment advisors in their investment decision-making process and investment advice. Additionally, disclosure on how these actors consider those factors would continue to depend on existing rules and voluntary disclosure. Furthermore, classification of what are sustainable economic activities would remain predominantly market driven and not harmonised across the EU.

Relevant market entities could make use of the following ESG information disclosed by issuers. This additional information would —at least with regard to large issuers— facilitate the integration by asset managers and institutional investors of ESG factors into their investment decision-making process and the disclosure of this information. As explained in Box 2, the number of financial market participants considering

environmental factors is estimated to have increased by 8% over the period 2015-2018 – which corresponds to a compound annual growth rate of 3.9%.

Given the rate of progress and divergences observed within the market, the baseline scenario would imply that the current problem drivers as discussed in section 2.2 would not be addressed. We refer to section 2.3 for a discussion of the consequences of the problems and how they would evolve.

In summary:

1. EU rules would remain insufficiently clear and not fully aligned across sectors on how the relevant entities need to consider ESG factors as part of their duties toward investors/beneficiaries.
2. Disclosure on how institutional investors, asset managers and investment advisors consider ESG factors in their investment decisions and recommendations would continue to be insufficient.
3. The lack of clarity on what are sustainable economic activities in the EU would persist.

As regards point 1, institutional investors, asset managers and investment advisors will still lack regulatory incentives to integrate ESG factors in their investment decision/advisory process (governance arrangements, risk management, investment strategy, asset allocation, suitability assessment and product selection process). This notably means that there will not be regulatory incentives to assess the risks related to ESG factors and, where relevant, take them into account in the investment decision/advisory process, with potentially economic, legal and reputational consequences. In addition, investment advisors and insurance distributors will also lack regulatory incentives to discuss and take into account their clients' preferences as regards ESG, with the result that end-investors' preferences in this field will continue not to be systematically discussed. Fragmentation in market practices on ESG integration in investment/advisory processes will thus persist. Overall, this will lead to distortions in investment decisions and reduced opportunities for ESG investments.

In addition, investors who would like to invest with impact through the selection of assets that contribute to the 2°C trajectory objective, will still not have the appropriate tools (benchmarks) to assess the performance of their low-carbon funds/portfolio. The lack of minimum standards for the methodologies to develop low-carbon indices would continue to affect their comparability and relevance. In addition, it will not incentivise companies to align their corporate strategies with climate goals.

With regard to point 2, relevant entities will still lack regulatory incentives to disclose to their clients in a transparent way how they integrate ESG factors in their investment decision/advisory process, making it more difficult and costly for end-investors to make informed decisions. Even though the reputational benefits of external communication on ESG integration may create incentives for more voluntary disclosures, such disclosures will not be systematic, coherent nor harmonised. Transparency on ESG factor integration will thus remain limited.

A related issue that is likely to persist is greenwashing of products/services that pursue ESG objectives. Eurosif (2016) for example, finds that roughly half of surveyed assets under management are said to subject to an ESG investment strategy. However, the

strategy used to make these products/services environmental-friendly is mostly based on exclusionary screening policies,[42] which are easy to implement, but may not always contribute to sustainability in the way that is advertised. There is a risk that investors and beneficiaries will continue to perceive a certain level of sustainability and environmental impact in their investment, whilst that often may not be the case.

Finally, as regards point 3, most Member States would likely remain without any classification in place or adopt a selected international classification by tailoring it to national policy priorities. As a result, divergence of definitions as to what constitutes a sustainable economic activity, for the purposes of investment, is likely to further increase. Market-led or market-driven classifications of sustainable economic activities and those provided by international bodies (that serve as baselines for Member States) would likely expand their scope, but progress would likely remain limited to subsets of *environmental* factors. Given the slow pace of development that has been observed over the last decade, it is likely that no substantial improvement in the coherence of different classifications would be achieved within the medium to long term.

In the absence of a common framework to understand what constitutes a sustainable economic activity, for the purposes of investment, the greenwashing issue would become even more sensitive. Due to an increasing variety of labels and standards available on the market, it would be difficult as well as costly for investors and beneficiaries to know whether the products they invest in meet their expectations. This would hamper not only demand for sustainable investments, but also trust in financial institutions.

5.2. Methodology

To identify the policy options for each of the three problem drivers identified in section 2 (and the corresponding specific objectives in section 4), three options were considered: (i) a non-legislative approach, (ii) a "light" regulatory approach, and (iii) a more comprehensive regulatory approach. For each of the problem drivers, the most realistic policy options were assessed. An overview is provided in the table below.

Table 3: Methodology table

	Non-legislative approach	Light regulatory approach	Comprehensive regulatory approach
Problem driver 1: Lack of clarity and coherence regarding the consideration of ESG factors in the investment and advisory process.	✓	✓	X
Problem driver 2: Lack of ESG disclosure requirements for institutional investors, asset managers and investment advisors.	X	✓	✓
Problem driver 3: Lack of clarity on what are sustainable economic activities.	X	✓	✓

[42] It involves blacklisting sectors or companies based on one or more ESG characteristics. See Annex 4 for further details.

X = discarded; ✓= assessed.

5.3. What is the scope of the various initiatives?

Before describing in detail the possible different options for each of the four initiatives considered in this impact assessment, and without pre-empting the choice of a preferred option, it is worth underlining that **the four initiatives being assessed - because they are addressing different problem drivers - will not apply to the same universes of investments, and thus will have different scopes in terms of financial entities, financial products/services and economic sectors impacted**. (*Section 6.1. describes in more detail the exact scope of the preferred option for each of the four initiatives in terms of financial entities, financial products and economic sectors impacted*).

The initiatives related to *Drivers 1* and *2* (namely the requirement to integrate ESG factors in the investment decision and advisory process and to disclose this information) would be expected to have an impact on all types of investment, whether sustainable or not. Therefore, these initiatives would have an impact on all financial products offered and services provided to end-investors by the relevant financial entities. They would make consideration of ESG integration mainstream in all investment decisions and advisory processes of these entities - without however 'forcing' investment into sustainable economic activities. As a result, all economic sectors could be impacted. Note that ESG integration as commonly interpreted by market participants in the context of duties towards investors/beneficiaries, refers to the environmental/social/governance risks that could affect the financial returns of the product/services offered/provided by the relevant entities.

The initiative's proposal to address *Driver 3* (to provide clarity on what constitutes a sustainable economic activity by setting out a framework for developing an EU taxonomy) could, by definition, have a direct impact on investments and financial products deemed sustainable. The universe of investments, financial products and thus financial entities affected by this specific initiative would therefore be much more limited than those affected through the initiatives addressing problem drivers 1 and 2. Only economic activities considered or marketed as 'sustainable' would be impacted by this initiative. Thus, it would not correspond to the broad set of ESG factors that could affect an investment's financial performance as is the case under the initiative aiming at clarifying the duties towards investors.

The initiative aimed at setting minimum standards for the methodologies used to develop low carbon indices would have an indirect impact on those investments and financial products deemed to be and identifying themselves as ones that contribute to the lowering of carbon emissions (including the financial entities that offer them). The universe of investments, financial products and thus financial entities affected by this specific initiative would therefore be even more limited.

5.4. Duties toward investors/beneficiaries with regards to ESG factors

5.4.1. Description of the policy options

Option 1: do nothing.

See baseline scenario in section 5.1.

Option 2**:** clarification of existing EU rules on duties towards investors/beneficiaries (*non-legislative approach*)

This option would provide clarification that the existing duties of relevant entities towards investors/beneficiaries do not prevent, but even support the integration of material ESG factors in the investment decision-making process and in the advisory process, even though this is not explicitly mentioned in most existing EU rules. More specifically, it would clarify, via a Commission communication or recommendation, how existing EU rules are to be interpreted vis-à-vis the integration of ESG factors in the investment process and advisory process as part of the duties towards investors/beneficiaries.

Under this option, relevant entities would be encouraged to follow (on a voluntary basis) the interpretation or recommendation of the Commission. This option would also provide further encouragement to Member States and industry bodies to align their rules and principles/practices with the interpretation provided by the Commission.

The use of non-binding tools and self-regulation grants relevant entities a high level of flexibility with regard to the integration of ESG factors in existing processes/procedures in the areas of risk management, investment strategy, asset allocation, governance and suitability assessment. This option could build on or refer to existing work by international bodies (e.g. OECD) and current (best) market practices. As compliance with the communication or recommendation would be voluntary, public authorities would have no power to enforce them.

Option 3: explicitly require the integration of ESG factors in the investment process and the advisors' recommendation process as part of duties towards investors/beneficiaries (*light regulatory approach*)

The current applicable rules do not explicitly refer to ESG factors and this leads to different interpretation of duties towards investors/beneficiaries with respect to ESG factors integration and creates legal uncertainty on whether and how these should be considered.

ESG integration is increasingly performed but it is not a widespread practice as it is hampered by the existing legal uncertainty. Some entities, in fact, do not analyse these factors, either because they do not have the tools and the ESG-related knowledge to do it or because they confuse ESG integration with ethical investing, which implies accepting lower risk-adjusted returns, which would not be in the best interest of their clients/beneficiaries.

This option would clarify that relevant entities, in order to act in the best interest of clients and coherently with the mandate, need to consider also ESG factors within the processes and procedures they have already in place to assess all relevant financial risks.

This option would specify that relevant entities are required to consider ESG risks as drivers of value in their investment process or investment advice as part of their duties towards investors/beneficiaries. More specifically, it would detail how and where material ESG risks are to be integrated within the procedures in the areas of investment strategy, risk management, asset allocation and governance, as they do for financial risks. This option would not prescribe how and where relevant entities need to invest, while performing their duties to investors/beneficiaries. If, as a result of their assessment, they find out that ESG factors have no material impact on the financial performance, they will not take them into account in their investment decisions/advisory recommendations.

However, where asset managers and institutional investors pursue a low carbon emission objective, they will be required to designate an appropriate benchmark, such as the EU low carbon or the positive carbon impact index as a reference benchmark.

For investment advisors, individual portfolio managers and insurance distributors, this option would also detail how and where ESG preferences are to be integrated within the suitability assessment and the product selection.

The sectoral EU frameworks (i.e. the AIFMD Directive 2011/61/EU, the UCITS Directive 2009/65/EC, the MiFID II Directive 2014/65/EU, the Solvency II Directive 2009/138/EC, Directive IDD 2016/97/EU) with the only exception of the IORPs II Directive 2016/2341, already foresee empowerments to specify the details of the relevant entities' duties in the area of governance, asset allocation, investment strategy, risk management, the suitability assessment and the product selection. Under this option, the current duties laid down by the above mentioned sectoral EU frameworks[43] would be further specified through level 2 measures either (i) making use of the existing empowerments or (ii) introducing new empowerments (under Directive 2016/2341) having regard to the following areas:

- **Corporate governance**: the integration of specific ESG considerations within governance arrangements and policies of relevant entities (e.g.: board responsibility, including a ESG specific committee and/or board member(s) in charge of approving ESG risk limits and overseeing their implementation; internal control functions responsible also for checking the effectiveness and adequacy of procedures, measures and policies specifically considering ESG factors integration; skill, expertise and knowledge on ESG factors, remuneration; ESG financial expertise).
- **Investment strategy:** the integration of specific ESG considerations in the product investment strategy.
  - **Risk management**: the identification, measurement, management and monitoring of the risks stemming from ESG factors within the overall risk management process. The risk assessment should not only be limited to financial risks. The quality and depth of the assessment of ESG factors depends on the investment policy (it varies according to asset classes: currency, for example, would be more difficult to assess than equity), the investment strategy (volatility-based strategies are more difficult to assess then equity long-short), and the available information.
  - **Asset allocation**: the integration of material ESG risks into the asset allocation and ongoing monitoring of the portfolio.
  - **Suitability assessment:** the integration of ESG factors into the suitability assessment process with the client. Firms providing investment advice would introduce ESG–related questions as part of client preferences, objectives and risk appetite. Based on the client's profile, they would offer or recommend products (for

[43] The EuVECA and EuSEF Regulations 345 and 346/2013 lay down rules for subthreshold managers of qualifying venture capital (EuVECA) and qualifying social entrepreneurship funds (EuSEF) not subject to the AIFMD Directive 2011/61/EU. The managers are required to act honestly, fairly and with due skill, care and diligence in conducting their activities. The current Commission proposal on the ESAs review (Proposal for a Regulation COM(2017)536/948972) already foresees further specifications of their duties through level two measures in consistency with article 12(1) of AIFMD. Since we envisage the development of L2 measures on ESG risks integration within the AIFMS framework on the basis of the empowerment in article 12(1) of the AIFMD, the alignment among these frameworks should be ensured.

example, collective investment funds, insurance-based investment products) and/or services that reflect ESG considerations.

- **Product selection process:** investment advisors should take into account ESG factors when assessing the range of financial instruments to be recommended to a client - in line with client's investment objectives - in order to ensure that ESG risks are adequately taken into account in the assessment of the target market. Asset owners and investment intermediaries should ensure that they have a sound understanding of the broad range of long-term interests and preferences of their clients and/or beneficiaries. This understanding should lead to an investment policy that is compliant with prudent person and incorporates the possible preferences stated by beneficiaries on ESG.

This option would either amend current Level 2 measures on general organisational and operating conditions or, where such measures do not yet exist as is the case under IORP II, introduce them in a consistent way. The Delegated Acts will be based on advice by the ESAs. As regards the suitability assessment, ESMA guidelines would be modified pursuant to Level 2 amendments. All these amendments would require public consultations of market participants.

Table 4: Discarded option for duties towards investors/beneficiaries

Discarded option	Reasons for discarding it
Option 4: Harmonisation of models/methodologies on the integration of ESG factors in the investment decisions/advisory recommendations (e.g. the way to measure ESG risks within the overall risk assessment would be harmonised for all relevant entities, irrespective of their size and sector).	• The harmonization of models/methodologies to measure ESG risks is perceived as premature as there is no consensus in the industry, among practitioners and in academia, on how to best integrate ESG factors. In addition, the issue of the quality, consistency and depth of existing data on issuers is challenging. • Given the heterogeneous approaches developed internally by relevant entities, this option would imply high compliance costs (at least for small entities), as they would have to adapt their existing processes to a single approach that does not necessarily fit with their characteristics. They would have to adapt their processes also under the preferred option 3, but they would retain the freedom to do so in a way that is compatible and proportionate to their organisation, business model, and cost function. • This option is not supported by industry stakeholders (EC2017b), as it would curb the discretionary power of the relevant entities in adapting models/methodologies to their needs.

5.4.2. Pros and cons

Table 5: Pros and Cons of options on duties towards investors/beneficiaries

	Pros	Cons
Option 2	• It provides clarity on the fact that existing duties of relevant entities towards investors/beneficiaries do not	• The recommendations provided by the Commission would provide encouragement for relevant entities

	prevent but even support assessing ESG factors and taking them into account in the investment/advisory process, whenever they are deemed to be a source of risks impacting on the financial performance. • It allows for the flexible integration of ESG factors.	and Member States to align with the existing best practices, but no specific guidance would be provided on how and where these factors should be considered in the investment/advisory process. Hence, diverging market practices on the integration of ESG factors would persist, given the uncertainty on the approach that Member States and/or relevant entities would adopt to implement the Commission recommendation (lack of coherence). • Relevant entities are likely to continue their current practices, lacking incentives to assess and take ESG factors into account in their investment process. • Similarly, entities providing financial advice and portfolio management are likely to continue their current practices to not systematically assess their clients'/beneficiaries' preferences as regards ESG considerations in their suitability test. • Consequently, only a limited increase of ESG factors integration in the investment and advisory process of relevant entities can be expected. • Some relevant entities may underestimate or ignore the financial impact of ESG factors on the risk-adjusted performance of the product/service in which clients invest.
Option 3	• It provides absolute clarity on the fact that existing duties (under current EU rules) towards investors/beneficiaries require assessing ESG factors and taking them into account whenever they are a source of material risks. • Non-financial risks that are deemed to have a financial material impact on the investment performance or valuation of a financial product/service, would	• Relevant entities that are not already integrating ESG factors within their processes, need to invest (financial) resources to obtain ESG expertise, data and tools to assess and integrate ESG factors in the investment / advisory processes. However, feedback received from stakeholders during targeted interviews, suggests that these costs are limited even for smaller players.[44]

[44] According to stakeholders, the costs of acquiring ESG data from external providers was estimated on average between EUR 80 000 and EUR 150 000 per year. The total costs of assessment, integration and disclosure of ESG factors is about 1%, 1.5% of the total cost of the product/service according to a small/medium asset manager. This includes the cost of collecting ESG data from external providers, and

	need to be considered by relevant entities, ensuring adequate risk management by relevant entities and enhancing the risk-adjusted performance of their products and services, particularly over the long-term. • It ensures a coherent approach across sectors and Member States with regard to the integration of ESG factors by relevant entities covering, among others, the areas of corporate governance, suitability assessment and risk management. • Finally, it ensures that entities providing investment advice and portfolio management systematically assess their clients/beneficiaries' preferences as regards ESG considerations in their suitability test.	

5.4.3. Impact on stakeholders

The table below assesses the impact of the policy options described above on key stakeholders. The following scale is used to assess the magnitude of the impact as compared with the baseline scenario (the baseline being indicated as 0): ++ strongly positive; + positive; – – strongly negative; – negative; ≈ marginal/neutral; ? uncertain; n.a. not applicable.

Table 6: Impact on stakeholders of options on duties towards investors/beneficiaries

Impact on key stakeholders	**Relevant entities**	**End-investors**
	Option 2 – Clarify existing duties	
Positive	(+) Clarity on the interpretation of duties towards investors/beneficiaries with respect to ESG factors. Moreover, the fact that no prescriptive rules would be introduced under this option, would allow the adoption of different approaches on ESG integration by the relevant entities (high flexibility on the ESG approach chosen).	(≈/+) As more relevant entities may carry out an assessment of material ESG factors in their investment/advisory process, the risk-adjusted return of investment products/services is enhanced, benefitting end-investors. (≈/+) More end-investors would be able to express their ESG preferences in the suitability assessment.

the additional internal/organisational costs linked to setting up documentation, prospectus, drafting contracts, and monitoring the risk.

Negative	(-) Limited compliance costs for relevant entities not already integrating ESG factors (i.e.: costs for ESG expertise, data and tools), which would vary depending on how relevant entities choose to integrate ESG factors.	(-) Diverging ESG approaches would persist as Member States and/or relevant entities can adopt different approaches. As a consequence, it is not ensured that (i) a given product or service will have an optimal risk-adjusted return profile and (ii) that clients/beneficiaries' preferences as regards ESG will be systematically taken into account.
	Option 3 – Explicitly require the integration of ESG factors in the investment/advisory process	
Positive	(++) Clarity on what is required as part of the duties towards investors/beneficiaries with respect to ESG factors. In addition, a coherent approach across sectors and Member States with regard to the integration of ESG factors would be ensured.	(++) The adoption of a common approach would ensure that ESG factors are assessed and integrated in a harmonised way. Whenever there are material source of risks, these factors would be taken into account, enhancing the risk adjusted returns of portfolios/products. Moreover, ESG integration approaches adopted by relevant entities would be comparable. (++) All clients/beneficiaries would be able to express their ESG preferences in the suitability assessment
Negative	(-) Limited compliance costs for relevant entities not already integrating ESG factors. On the one hand, the higher prescriptiveness of this policy option as regards the approach to ESG integration may increase compliance costs; on the other hand, the adoption of a common/standardised approach is susceptible to reduce such costs because the policy option will clarify how to do it for those entities that do not integrate ESG factors.	

The different options would only indirectly affect issuers as this initiative mainly adds clarification and coherence across sectors. Integrating ESG factors under investors' duties means, with regard to asset managers and institutional investors, that they would assess the sustainability risks of their portfolios as a whole, mainly over the long term. If this first preliminary assessment leads them to conclude that there are no risks deemed to be relevant for the portfolio stemming from those factors, then no further analysis is required. If, on the contrary, sustainability risks are relevant, under the current rules, it is

necessary to assess their impact on the performance of the portfolio and therefore collect the necessary information for this purpose from investee companies.

Assessing the relevance of these sustainability risks for the investment portfolio as a whole is a broader concept than the risk that individual investee companies that are part of the investment portfolio pose in terms of sustainability. The broader risk related to the portfolio is not necessarily linked to the activities of individual companies because ESG risks also affect companies that do not carry out sustainable activities.

Since interviewed asset managers indicated that the lack of good quality and comparable data from companies is a barrier to assess the risks related to ESG factors, they are expected to engage with the investee companies to increase the level and quality of the ESG information disclosed from issuers if they target investments in those companies.

5.4.4. Stakeholder's views

The table below summarises the views of stakeholders based on the results of the public consultation on duties towards investors'/beneficiaries and on targeted interviews with financial institutions held in January 2018.

*Table 7: Stakeholder's views on duties towards investors/beneficiaries**

Stakeholders	Clarity on ESG integration and why	Where	Barriers to ESG integration
Overall	About 80% of the respondents to the public consultation agreed that relevant entities should consider ESG factors in the investment decision process. Several stakeholders called for clarification on duties towards investors/beneficiaries with regard to ESG factors. Several industry respondents[45] stressed that any legislation should not be rigid and prescriptive.	Almost all respondents think that ESG factors should be integrated in the areas identified in the public consultation (i.e. governance, investment strategy, risk management, asset allocation). Several stakeholders called for EU legislation to: (i) clarify that duties towards investors require integrating sustainability factors in the investment process; and (ii) mandate the related disclosure towards clients/ beneficiaries.	Respondents to the public consultation often cited the following barriers for integrating ESG factors: lack of ESG expertise/ experience, inadequate impact metrics, inadequate methodologies for calculation of sustainable risks, lack of data/research (e.g. over 60% of industry respondents). Respondents (71% of industry respondents) indicated that social factors are the most difficult to assess and integrate, followed by environmental and climate factors.

*See Annex 2, Section 13 for a more detailed and differentiated overview of stakeholders' views.

[45] Total of 108 respondents, about half from asset management industry.

5.4.5. Comparison of policy options

Table 8 below summarises the extent to which the options are **effective, efficient** and **coherent**. Effectiveness is mapped against the specific objectives set out in section 4.2. The respective scores are attributed on the basis of the analysis of pros and cons above.

Table 8: Benchmarking policy options on clarity concerning ESG integration as part of duties towards investors/beneficiaries

	Effectiveness			**Efficiency**	**Coherence**	**Score**
	Objective 1	Objective 2	Objective 3			
Option 1	0	0	0	0	0	0
Option 2	≈/+	≈/+	0	≈/-	≈/+	1
Option 3	++	+	≈	-	+/++	3.5

Note: *Magnitude of impact as compared with the baseline scenario (the baseline is indicated as 0): ++ strongly positive (score 2); +/++ very positive (score 1.5); + positive (score 1); +/ ≈ marginal positive (score 0.5); – – strongly negative (score –2); –/– – very negative (score –1.5); – negative (score –1); ≈/– marginal negative (score – 0.5); ≈ neutral.*

Effectiveness: Option 3 is the most effective in reaching policy objective 1, as it introduces harmonised requirements across all relevant sectors on how and where existing processes/procedures of relevant entities need to be adapted for the integration of ESG factors at EU level. Specifying the consideration of ESG factors in investment rules, governance requirements and risk management serves the purpose of avoiding different approaches across financial sectors and Member States in the implementation of the current duties towards clients and beneficiaries, thus increasing consumer protection, ensuring a level playing field among the financial market participants and enhancing competition. Option 2 also contributes to policy objective 1, but the level of harmonisation would be much lower compared to Option 3, given that implementation of the Commission's communication or recommendation by relevant entities and Member States is voluntary. In terms of other objectives, Option 3 also provides the most tangible (albeit indirect) contribution to objective 2, as mandatory and harmonised ESG integration by all relevant entities enhances transparency by improving the comparability of the information that is disclosed to end-investors on ESG integration. Under Option 2, information on ESG integration would likely not be comparable due to the possibility for relevant entities to adopt diverging approaches on ESG integration.

Efficiency: Option 2 is the least costly option, as it involves very limited compliance costs. Entities that do not already integrate ESG factors may decide to do so according to their own approach. It is likely that relevant entities who already integrate ESG factors would continue doing so, with no or very low additional costs. Option 3 would also entail limited compliance costs. Feedback from the public consultation and targeted interviews indicates that these are part of the overall internal/organisational costs related to the risk management and monitoring of certain exposures.

In fact, the tasks foreseen for financial entities covered by this initiative would be incorporated within the existing organisational and operating procedures. More precisely, as indicated by stakeholders, there is no need to hire new staff. It is more a question of investing more systematically in ESG expertise (e.g. at employee and board level), data and tools. This could involve —depending on the current level of ESG integration — buying ESG data from third-party vendors, more systematic integration in the investment decision process and risk assessment, and possibly further task specialisation and more active engagement with companies on topics related to ESG.

ESG related information and data may not be directly available on the market or the available data may be of low quality and not comparable. As explained in the last paragraphs of section 5.4.3, relevant entities shall rely on non-financial information published by companies. Moreover, they can also engage with the investee companies to increase the level and quality of the ESG information disclosed by issuers when they target investments in those companies.

For example, an asset manager invests in a small company located in the Netherlands where there are risks of flooding due to climate change. As part of the duties towards its clients, the asset manager should take this risk of flooding into account. The information to analyse this risk will not come from the small company in this example, but will be related to the country.

Similarly, investing in companies in emerging markets which might be more vulnerable to negative effects of ESG risks such as extreme weather events, resource scarcity, social inequality, and poor governance, require relevant entities to understand the materiality of those risks for their portfolios' performance. Finally, national regulation on ESG issues can also have specific impacts on companies operating in a given sector, for instance to offset carbon emission (see e.g. the Chinese government initiative to reduce carbon emission).

Follow up interviews with asset managers indicated that their financial analysts develop more expertise in geographic areas or sectors where less information is available exactly because they have to make more efforts to be able to analyse and measure both financial and non-financial (ESG risks) and their impact on financial returns.
Option 3 is only on procedures, not on methodologies, to grant financial entities the flexibility that they need, as they clearly stated in the targeted interviews: "not be boxed into precise and strict rules". In details,

- Public consultation: we asked asset managers what the additional cost would be of integrating ESG considerations and offered the choice between several ranges. Respondents, with only one exception, chose the lowest range of costs.
- Targeted interviews: six out of 23 interviewed entities provided numbers on the perspective costs of ESG integration. For the small entities, the additional cost ranged from EUR 80 000 to EUR 200 000 per year (for buying external data, doing additional internal research, engagement with companies etc.), i.e maximum 0.0001 % of AuM (by way of comparison, the total cost for an equity fund is around 2 % per year[46]). The highest relative additional cost we recorded was 0.0003 % of AuM per year (for a player with EUR 72 billion AuM). Since we cover small and large players, we have no reason to believe that it would be

[46] Over the course of 2017, Deloitte Luxembourg carried out for the Commission a mapping of the supply of retail investment products which included analysis of the levels of ongoing charges by fund managers. According to the analysis the averages (median values) for ongoing fees for the investment funds in scope were as follows: Bond funds - 1.01% p.a.; Mixed funds – 1.51% p.a.; Equity funds – 1.89% p.a where ongoing charges are fees charged on a regular (annual) basis including management fees of the fund, expressed as a percentage of the amount invested/held. The mapping covered 15 Member States chosen based on market size, date of integration into the European Union (EU), and the variety of specific policy frameworks in place: Belgium, Czech Republic, Denmark, Estonia, France, Germany, Italy, Luxembourg, the Netherlands, Poland, Portugal, Romania, Spain, Sweden and the United Kingdom.

fundamentally different for other market participants.

The benefits under Option 3 are expected to be higher due to the adoption of harmonised criteria that would ensure more clarity and a coherent approach across sectors and Member States as regards the integration of ESG factors by the relevant entities. This would also end up in more reliable and comparable ESG information for end-investors.

Coherence: By introducing requirements on the integration of ESG factors in selected areas (e.g. governance, risk management and suitability assessment) across all relevant sectoral legislation, Option 3 would ensure overall coherence of the EU rules on duties towards investors/beneficiaries. Option 2 would likely only have a marginal positive effect on coherence, as integration of ESG factors remains voluntary. Option 3 is also in line with the HLEG final recommendation stating that the Commission clarifies that the fiduciary duties of institutional investors and asset managers explicitly integrate material ESG factors in their key investment activities, including investment strategy, risk management, asset allocation, governance. Regarding the first Draft of the ECON Report on Sustainable Finance, Option 3 is in line with the European Parliament's position that fiduciary duty must encompass ESG factors on a mandatory basis.

Option 3 is also more coherent than Option 2 with other EU recent initiatives that explicitly require the integration of ESG factors into the decision making process by institutional investors (IORP II, the revised Shareholders Rights Directive, and the recent Commission proposal on a Pan-European Personal Pension Product).

Having established how the options score in terms of effectiveness, efficiency and coherence, table 9 also highlights how the options score in terms of the level of **stakeholder support and overall level of regulatory ambition**. The latter could be an indication of the political challenges associated with the options in question.

Table 9: Summary of pros/cons of options on duties towards investors/beneficiaries

Option	**Effectiveness/efficiency/coherence** (score)	**Stakeholders support**	**Level of ambition/challenge**
2	1	Medium	Low
3	3.5	Medium/High	Medium

Both Option 2 and 3 received broad support from industry with a preference for Option 3. Most stakeholders consider that it is part of the duties towards investors/beneficiaries to consider and analyse all risks that are material for an investment product/service and that clarification on this aspect would be welcome. The vast majority of stakeholders is against rigid and prescriptive rules, because the relevance of ESG risks depends on the characteristics of the investment strategy, the time horizon, etc. It is therefore important to allow some flexibility to take into account such diversity in business models among different types of relevant entities. The industry would welcome guidance on how to integrate ESG factors. In particular, entities already integrating ESG factors indicate that developing harmonised guidance would help ensure consistency across sectors and products/services. The choice of Level 2 measures to implement this policy option would be proportionate from this point of view.

Option 3 is the preferred option as it is the best way forward in view of the comparative analysis in terms of effectiveness, efficiency and coherence. At the same

time, stakeholder support is medium/high for Option 3, because it strikes the right balance between harmonization and flexibility, while reaching the policy objectives of clarity on investors' duties and ESG factors' integration. The preferred option is considered as proportionate in terms of costs for relevant entities as it requires limited investment in ESG expertise, data and tools. Moreover, the criteria specifying how and where material ESG risks are to be integrated within the existing procedures will be developed taking into account the size, nature, scale and complexity of the activities of the relevant entity. This option therefore will achieve the intended objectives without imposing any unnecessary burden on the relevant entities. It also has limited indirect impact on issuers (including small issuers) as they are already largely required to disclose material non-financial information in their management report.

5.5. Increase transparency by disclosing how ESG factors are integrated in the investment and advisors' recommendation process and, for investments targeting sustainable objectives

5.5.1. Description of the policy options

Option 1: Do nothing.

See baseline scenario in section 5.1.

Option 2: introducing mandatory disclosures at the level of the institutional investors, asset managers and investment advisors on ESG integration in the investment/advisory process (*light regulatory approach*)

This option would introduce specific disclosure requirements at the level of the relevant entities within the already existing transparency obligations, on how they consider ESG factors within their investment decision/advisory process. This option would be coherent with the current approach already taken under Article 30 of the IORPs II Directive.

This could be achieved through a legislative proposal that includes provisions to modify the current sectoral rules (i.e. AIFMD, UCITS, MiFID II, Solvency II, EuVECA, EuSEF, IDD and IORP II) and introduce new ones (pension providers other than IORPs) thus ensuring full across-sectoral consistency. The new disclosure requirements would be complemented by a transitional period.

Option 3: introducing mandatory disclosures both at the level of the institutional investors, investment advisors and asset managers and for the given financial product or service (*comprehensive regulatory approach*)

Sub-option 3.a): On top of the mandatory disclosure at entity level, as described in Option 2, this option would introduce specific disclosure requirements at the level of the financial product or service. For each financial product (e.g. collective investment funds, insurance-based investment products) or service they offer (e.g. investment portfolio management), relevant entities would be required to provide pre-contractual and contractual information (e.g. prospectuses) on how ESG risks are taken into account within the investment/advisory process they have in place and on the related impact on the risk-adjusted returns of the portfolio of the resulting investment decisions (e.g. in the funds' annual reports) or on product/investment recommendations.

Sub-option 3.b): This option foresees the same disclosure obligations described under sub-Option 3a concerning transparency on the integration of ESG factors, but in addition would require, for products/services pursuing sustainability objectives, specific

disclosure on how the sustainability investment objectives are achieved and on the contribution of the investment decisions to sustainability objectives. More precisely, asset managers and institutional investors would need to disclose, in compliance with the investor's mandate: (i) when they market their products/services as pursuing environmentally sustainable investment objectives, how and to what extent the criteria for environmentally sustainable economic activities in the EU taxonomy, once developed, have been used. How the environmental sustainability of the investments selected for the financial product/service is determined once the taxonomy is in place (once the delegated acts enter into application, see box 7 (section B) on the immediate use of the taxonomy); (ii) when they market their products/services as pursuing sustainability investment objectives, the calculation methodology used to assess, evaluate and monitor the adherence and the contribution of the investment decisions to the sustainability objectives.

In addition, in cases where an index has been designated as reference benchmark, asset managers and institutional investors would be required to inform end-investors, by means of pre-contractual and contractual information and websites, about whether an index has been designated as a reference benchmark, the appropriateness of the index, the alignment of the index with the sustainability objective and the degree of freedom to deviate from that index. Asset managers and institutional investors would also explain the reasons for different weighting and constituents of the reference benchmark compared to a broad market index.

In addition, the sustainability impact of the financial products consistent with its sustainability objective would be regularly reported through indicators relevant for the chosen sustainability objective together with the related calculation methodology.[47] For this purpose, in order to limit the indirect cost on issuers (including smaller issuers), financial market participants would have to use information that issuers are already obliged to provide in accordance with the Accounting Directive (Directive 2013/34/EU).

Where an appropriate index has been designated as reference benchmark, this information would also be provided in relation to the reference benchmark and also to a broad market index to allow for comparison.

Where asset managers and institutional investors market themselves as pursuing a low carbon emission objective and no index has been designated as reference benchmark, they would publish on their website an explanation of how they intend to ensure continued adherence to the low carbon emission objective.

Both sub-options encompass a legislative proposal that include provisions ensuring full across-sectoral consistency, in order to address in a coordinated manner shortcomings in investor protection measures and guarantee more legal certainty. The lack of transparency on the integration of sustainability risks and on the pursuance of sustainable investments would not be solved solely by amending existing Level 1 sectoral EU rules on pre-contractual information and on reporting (i.e. AIFMD[48], UCITS, MiFID II, IDD, Solvency II, EuVECA, EuSEF, and IORP II), as this could give rise to an uneven

[47]This means that, where asset managers or institutional investors market their products/services as pursuing a low carbon strategy, they would have to disclose in compliance with the investor's mandate: (i) the envisaged exposure on the portfolio of climate change-related risks (target footprint), (ii) the exposure of the overall portfolio consistent with its climate change-related objectives (their portfolio carbon footprint) and (iii) the related calculation methodology.

[48] Disclosure requirements on ELTIFs' managers are covered by AIFMD.

implementation among sectors and Member States. New rules would be introduced for pension providers other than IORP II. A directly applicable regulation, providing full harmonisation, is necessary to achieve the policy objective of increasing transparency on the integration of sustainability risks and on sustainable investments. A regulation, therefore, should best deliver maximum harmonisation avoiding divergences and thus ensuring greater regulatory convergence. Targeted Level 2 measures further specifying the details of the presentation and content of information on sustainability investment objectives to be disclosed in pre-contractual documents, periodical report and websites of relevant entities are also envisaged.

5.5.2. Pros and Cons

Table 10: Pros and Cons of options on disclosure

	Pros	**Cons**
Option 2	• Disclosure at entity level on how ESG factors are taken into account in the investment/advisory process would reduce search costs for end-investors on ESG related information. • External communication on how they take ESG factors into account, even if done at high level, will bring reputational benefits to relevant entities and attract new investors.	• Disclosed information would most likely be high level and consequently may not significantly increase transparency for end-investors. • For relevant entities, the direct cost of making publicly available a statement on how ESG factors are integrated in the investment/advisory process would be minor.
Option 3a	• Same pros as under Option 2. • Harmonised disclosure at product and/or service level, prior to their investment, would allow end-investors to have more granular information and knowledge on ESG integration. • Harmonised disclosure on the impact of ESG integration on portfolios and on recommendations would give end-investors the possibility to verify how the ESG integration has been put in place as per ex ante disclosure. • The ability of end-investors to compare the investment proposition of different products/services will increase. • Overall transparency and knowledge related to ESG factors, how they are considered in investment/advisory processes and	• Relevant entities would incur costs for updating product/service pre-contractual and contractual documents, as this would require legal expertise. • The amount of ESG related information to process for end-investors would increase, possibly adding an additional layer of complexity to investment decision making.

	their impact on the risk-adjusted returns of portfolios' will increase.	
Option 3b	• Same pros as under Option 3a. • Increase transparency towards end-investors on how the sustainability objectives of an investment decision are achieved will provide the information necessary to identify investment opportunities that reflect their sustainability preferences. • Requiring disclosure, by asset managers and institutional investors, on the contribution/impact of the portfolio/fund to the sustainability objective pursued, as well as on the related calculation methodology: (i) will increase market awareness on sustainability issues; (ii) will promote market discipline discouraging greenwashing practices; (iii) will increase competition encouraging competitors to enter the ESG products market.	• Although institutional investors and asset managers appear to have progressed further in their assessment of ESG related risks and opportunities, heterogeneous methodologies are used across market players, which would not allow straightforward comparability of how the investment contribution/impact to the sustainability objectives pursued, have been calculated. • Costly for asset managers/institutional investors to invest in (internal or external) methodologies to calculate the contribution/impact of the overall portfolio/fund to the sustainability objectives, that needs to be disclosed. However, these costs should not be significantly high because, for sustainability products, asset managers and institutional investors are expected to rely on their existing tools/methodologies.

5.5.3. Impact on stakeholders

The table below summarises the overall assessment of the options to increase transparency by introducing disclosure requirements. The following scale is used to assess the magnitude of the impact as compared with the baseline scenario (the baseline being indicated as 0): ++ strongly positive; + positive; – – strongly negative; – negative; ≈ marginal/neutral; ? uncertain; n.a. not applicable.

Table 11: Impact on stakeholders of options on disclosure

Impact on key stakeholders	**Relevant entities**	**End- investors**
	Option 2 – Mandatory disclosures at the level of the entity	
Positive	(+) Reputational benefits from increased disclosure on ESG integration would bring reputational benefits to the relevant entities and possibly attract new investors, as a consequence.	(≈/+) More information on how ESG factors are integrated in the investment/advisory process would be disclosed to end-investors. However, as such disclosure is only at the entity level, it would likely only be in general terms. This would not contribute much to increasing transparency towards

		end-investors on the materiality of ESG factors for their investment decisions.
Negative	(≈/-) Costs to comply with the disclosure requirement at entity level proposed under this option would be minor: disclosure could simply take the form of a statement of how the entity integrates ESG factors in the investment/advisory process.	
	Option 3a – Mandatory disclosures both at the level of the entity and financial product or service	
Positive	(+) Reputational benefits for relevant entities would be high thanks to the higher comparability of disclosed ESG information. This could attract new investors.	(+) Requiring disclosure both at entity and financial product or service level will increase the granularity of available information to end-investors on ESG integration/impact, reducing search costs. This information would be provided in a harmonised and comparable way, in particular when based on a harmonised approach on ESG integration in the investment/advisory process. Consequently, transparency will increase, enabling end-investors to interpret and use the information.
Negative	(-) Costs to comply with disclosure requirements at entity level and at product/service level on how ESG factors are considered by the relevant entities and what is their impact on the risk-adjusted returns of the portfolios, are more significant.	(≈/-) Higher granularity of available ESG related disclosure would increase the amount of available information, adding a new layer of complexity linked to the cost of processing this higher amount of information.
	Option 3b – Mandatory disclosures both at the level of the entity and financial product or service and on sustainability objectives	
Positive	(+) Reputational benefits as under Option 3a. Evidence[49] suggests that the markets will reward companies that come up with innovative approaches to address ESG factors. Disclosure on the contribution/impact of investments to sustainability objectives, as well	(++) Increased transparency on the sustainability objectives is achieved and on the contribution of the overall portfolios/funds. This will provide (retail) end-investors with tools to take investment decisions that correspond to their sustainability preferences. Increased

[49] Eccles and Serafeim (2013).

	as on the related calculation methodologies, will contribute to this. One large asset manager[50] acknowledged that there may be a climate change risk premium for equities in the future.	transparency will therefore contribute to the optimal allocation of their savings towards sustainability portfolios/funds and it will also reduce the risk of greenwashing.
Negative	(-) Costs to comply with disclosure requirements at entity level and at product/service level as under Option 3a. Cost related to the disclosure on the contribution/impact of investments to sustainability objectives, as well as on the related calculation methodologies, are not significantly high because, for sustainability products, it is expected that relevant entities will rely on their existing tools/methodologies.	(-) Different and heterogeneous methodologies exist which are not straightforward to compare.

Furthermore, these options will also indirectly impact the content of the information disclosed by issuers. Option 2 and 3 will further incentivize issuers to disclose relevant ESG information that could be used by asset managers and institutional investors to assess the adherence and contribution of the product/service to the sustainability objectives pursued.

5.5.4. Stakeholder's views

The table below summarises the views of stakeholders based on the results of the public consultation on duties towards investors'/beneficiaries (EC2017b) and on the targeted interviews with select stakeholders.

*Table 12: Stakeholder's views on options on disclosure**

Stakeholders	Level of disclosure	Costs
Overall	Almost all respondents agreed on the need to disclose how investment entities consider ESG factors within their investment decision-making. There was full support to disclose information in semi-annual/annual reports, pre-contractual disclosure (e.g. prospectuses) and on websites.	Industry respondents indicated that mandatory disclosure at product level would entail costs, mostly due to the need to update prospectuses (EUR 40 000 per product/service according to one respondent). No responses from other categories of stakeholders were received.

*See Annex 2 Section 13 for a more detailed overview of stakeholders' views. Please note that stakeholders were only asked about the disclosure on how they integrate ESG factors in their investment decision or advisory process (Option 3a).

[50] Blackrock: « The Price of Climate » , October 2015.

5.5.5. Comparison of policy options

Table 13 summarises the extent to which the options on disclosure are effective**,** efficient and coherent. Effectiveness is mapped against the specific objectives set out in section 4.2. The respective scores are attributed on the basis of the analysis of pros and cons above.

Table 13: Benchmarking policy options on disclosure on ESG integration and sustainability objectives

	Effectiveness			*Efficiency*	*Coherence*	*Score*
	Objective 1	Objective 2	Objective 3			
Option 1	0	0	0	0	0	0
Option 2	≈/+	≈/+	0	≈/-	≈/+	1
Option 3a	+	+/++	≈/+	≈/-	+	4
Option 3b	+	++	≈/+	-	++	4.5

Note: *Magnitude of impact as compared with the baseline scenario (the baseline is indicated as 0): ++ strongly positive (score 2); +/++ very positive (score 1.5); + positive (score 1); +/≈ marginal positive (score 0.5); – – strongly negative (score –2); –/– – very negative (score –1.5); – negative (score –1); ≈/– marginal negative (score – 0.5); ≈ neutral.*

Effectiveness: While Option 2 introduces high-level disclosure at entity level on ESG integration, Option 3a and 3b also require more granular disclosure at the level of the product/service on how ESG factors are integrated in the investment decision/advisory process and on the impact on portfolios resulting from investment decisions. Hence, these options are more effective in achieving specific objective 2. Option 3a requires relevant entities to disclose how they integrate ESG factors in their investment decision-making process, as part of their duties, i.e. how they comply with the investors' duties requirements (independently of whether ESG risks are material or not for their product/service). Asset managers indicated during targeted interviews that, even if they have risk management processes in place to analyse ESG risks, as part of their duties, they are not very transparent on this towards their clients. Option 3a reduces asymmetric information between asset managers and end-investors on this, making the latter ones more aware of all risks deemed material for the product/service they invest in.

The transparency requirement on ESG integration under investors' duties alone would not satisfy the end-investors' need to identify "ethical investments". It is the second disclosure requirements, under Option 3b, on products/services pursuing sustainability objectives that would satisfy this need. Option 3b foresees on top of the same disclosure requirements as under Option 3a, that asset managers and institutional investors disclose information on how the sustainability objective of the investment decision is achieved when they market their products/services as pursuing sustainability investment objectives. Option 3b also foresees disclosure on the contribution/impact of the fund/portfolio to this sustainability objective.

Hence, Option 3b is considered the most effective, as it will also provide end-investors with concrete tools to identify investments that are aligned with their sustainability preferences. In turn, this positively contributes to increasing transparency on what is the ESG impact of these investments, and will reduce the risk that relevant financial entities claim their products to be more sustainability-friendly than they are in reality. Given the heterogeneous methodologies existing for assessing ESG related risks and opportunities as well as for calculating the contribution to the sustainability objective pursued with the investment decision, it may remain difficult for end-investors to compare these methodologies. With regard to specific objective 1, all options are expected to have a

positive impact on the integration of ESG factors in the investment and advisory process. Increased disclosure (and consequently comparability) will likely increase market discipline, incentivising relevant entities to raise their standards on ESG integration.

Efficiency: Concerning disclosure on ESG integration, compliance costs would be higher under Options 3a and 3b than under Option 2, because these options require modification of product/service pre-contractual and contractual information, such as the prospectus and funds' annual reports. Modifying pre-contractual and contractual information of a product is the most costly element.

As regards pre-contractual information, according to one estimate provided by an asset manager, the cost of modifying and reissuing a prospectus is about EUR 40 000 per product. However, feedback received from stakeholders and targeted interviews also highlighted the fact that, because of regulatory changes or other reasons, they have to revise the prospectuses of their product at least every year anyway. If the prospectus has to be periodically revised in any event, the cost of adding ESG related information should be a fraction of it. Therefore, to avoid additional costs, Options 3a and 3b foresee a transitional period meant to reduce considerably compliance costs.
Even though no quantitative data have been provided by stakeholders, in the public consultation and targeted interviews, relevant entities mentioned the potential of attracting new investors when disclosing ESG integration and sustainability objectives. Moreover, for end-investors, the costs of searching for the investments that correspond to their sustainability preferences will be reduced.

Cost related to the disclosure of the impact of investments on sustainability objectives, as well as on the related calculation methodologies have not been directly assessed. However, these costs are not expected to be significantly high. For sustainability products, asset managers and institutional investors are expected to rely on their existing tools/methodologies to measure that impact. Follow-up calls with some industry representatives clearly indicated that it is very difficult to manage "what you don't measure", meaning that they already have methodologies to calculate the "sustainability-related" impact of the funds compared to those of the benchmark.

Coherence: Options 3a and 3b are the most coherent with other EU rules and recent initiatives having the objective of increasing transparency on ESG factors in the markets and to the benefit of end-investors, such as the revised Shareholders Rights Directive, the Commission Proposal on a Pan-European Personal Pension Product (PEPP), the Directive on disclosure of non-financial information. Where institutional investors and asset managers make available packaged retail and insurance-based investment products, coherence with the procedural requirements foreseen by the PRIIPs Regulation for products targeting environmental and social objectives is ensured.

Having established how the options score in terms of effectiveness, efficiency and coherence, table 14 also highlights how the options score in terms of the level of **stakeholder support and overall level of regulatory ambition**. The latter could be an indication of the political challenges associated with the options in question.

Table 14: Summary of pros/cons of options

Option	**Effectiveness/efficiency/coherence** (score)	**Stakeholders support**	**Level of ambition/challenge**
2	1	Medium/high	Low

3a	4	Medium	Medium/High
3b	4.5	Medium	High

All options received support from stakeholders with a preference for Option 2. All stakeholders consider it important to increase disclosure at the level of the entity on the integration of ESG factors. Those entities already integrating ESG factors, mostly disclose information on this on their websites. The majority of respondents from industry support disclosure on ESG integration at product level, while a few oppose.[51] However, the overall feedback is that more harmonised disclosure on ESG integration would be very useful for end-investors, in particular for retail investors. Option 3b was mostly supported by entities that already have Socially Responsible Products (SRI). They underlined that there is currently a very heterogeneous level of disclosure on impact indicators for sustainability issues and only for a limited part of the ESG portfolio. These respondents also suggested to start gradually, for example with climate issues, where methodologies and efforts to build the effects of climate change related risks into business models are more developed.

In terms of level of ambition, Option 3b is rated as the most ambitious, as disclosure would also cover information on how the sustainability objective of the product/service is achieved and on the contribution/impact of investment decisions on that objective, but at the same time corresponds the most with the political urgency to take action on sustainability issues.

Option 3b is preferred given that it is the best way forward in view of the analysis of the comparison of options in terms of effectiveness, efficiency and coherence in Table 14. It reaches the policy objectives of higher transparency and reduced search costs for end-investors on both the integration of ESG risks in their investments and on how sustainable their investments are (where the investment product is marketed as such). The preferred option is considered as proportionate as regards the cost for relevant entities and the indirect cost for issuers. As regards the cost for relevant entities, it is not expected to be high as they can rely on their existing tools/methodologies. As regards the indirect cost for issuers, relevant entities would have to use the information provided by issuers in accordance with the Accounting Directive (Directive 2013/34/EU). This would limit the indirect cost for issuers (including smaller issuers) to disclose additional information.

5.6 Clarity on what are considered sustainable economic activities

5.6.1. Description of the policy options

See Annex 8 section I for a tree schematising the policy options and the key questions for retaining/discarding them.

Option 1: do nothing

[51] Mandatory disclosure at product level would be problematic for separate accounts/customised investments; for some it would be onerous given the quantity and diversity of products they offer.

See baseline scenario in section 5.1.

Option 2: EU environmental taxonomy with medium granularity (*light regulatory approach*)

Option 2 envisages the creation of an EU taxonomy on what can be considered an environmentally sustainable economic activity, for the purposes of establishing the environmental sustainability of an investment. This approach would identify and classify economic activities grouped by **macro-sectors, sectors and sub-sectors**[52] that have a clear positive impact on one or several of **six environmental objectives** aligned with the EU's public policy goals:

1. Climate change mitigation;
2. Climate change adaptation;
3. Water resource management and conservation (water efficiency and sustainable management and withdrawals);
4. Circular economy and waste management;
5. Pollution prevention and control (pollutants to and in air, land, water and sea) and reduction of noise impacts;
6. Healthy natural habitats (protecting and enhancing land & marine habitats and biodiversity).

Within each macro-sector, the taxonomy would identify the economic activities (per sector and sub-sector) that contribute unambiguously to at least one of these six environmental objectives.[53] An additional condition for an economic activity to be included in the taxonomy would be that it does not significantly harm any of the other EU environmental objectives ("do no harm" principle). In addition, the economic activity would have to be carried out in compliance with minimum international standards.[54] This would ensure that investments in economic activities which infringe on other environmental objectives and/or minimum international and national standards, are excluded.[55]

The list of eligible economic activities would not contain economic activities whose contribution to at least one of the six environmental objectives (i) is not unambiguous and/or (ii) depends on additional criteria. For example, the building sector would be excluded from the taxonomy developed under Option 2 as its' possible contribution to EU environmental objectives depends on the definition of further criteria such as, for example, energy efficiency performance.

[52] The list of economic activities would – as much as possible – use/be consistent with the classification developed by Eurostat (Statistical Classification of Economic Activities in the European Community (NACE)) and the classification for the Environmental Goods and Services Sector (EGSS)). The list would also build on existing classifications from the Multilateral Development Bank community and market-led initiatives (e.g. Climate Bonds).

[53] An example where a sector contributes to several objectives: the sector "waste water treatment plant" in the "solid waste management" macro-sector would contribute to the following EU sustainability objectives: "climate change mitigation" through reduced greenhouse gas emissions, "pollution prevention and control" through less micro-plastics or pharmaceuticals in the water and "waste minimisation" through water re-use.

[54] International minimum standards would be for example (i) the International Labour Organisation's declaration on Fundamental Rights and Principles at Work and the eight ILO core conventions set out in the Declaration.

[55] For example, investing in biofuels without minimum requirements may lead to deforestation and loss of biodiversity, air pollution from combustion and excessive water use..

See Annex 8 section IV for an illustration of the taxonomy under Option 2.

The legal instrument envisaged in Option 2 would be a **directive**. This directive would provide (i) the six EU environmental objectives and (ii) the list of eligible economic activities. The directive would achieve **minimum harmonization** at EU level. It would grant sufficient discretion and flexibility to Member States to (i) identify at national level more economic activities contributing to the six environmental objectives, and/or (ii) provide for more granularity in the additional criteria necessary for an activity to be considered environmentally sustainable for this taxonomy.

The directive would be subject to a review clause every three years with the objective of (i) taking into account possible technological developments or improvements in the knowledge and expertise on environmental issues and (ii) integrating social objectives and sectors contributing to those objectives, as knowledge gradually increases on these aspects.

Option 3: EU environmental taxonomy with high granularity (*comprehensive regulatory approach*).

Option 3 would lay down a framework for creating an EU environmental taxonomy on what can be considered an environmentally sustainable economic activity, for the purposes of establishing the environmental sustainability of an investment. As will be explained throughout this and the next section, the precise criteria and each and every use of the taxonomy will be subject to impact assessments before being implemented.

Option 3 would be more comprehensive and granular than option 2 thanks to the introduction of technical screening criteria to determine whether an economic activity substantially contributes to one or more environmental objectives.

The framework developed under Option 3 would thus identify:

- the same **six environmental objectives** as under Option 2;
- **economic activities (grouped by macro-sector, sector and sub-sector)** that can contribute to any of the six environmental objectives;
- **technical screening criteria** which would identify economic activities that are considered to contribute to the environmental objectives set out under the framework. The technical screening criteria would include:
    - "screening issues" highlighting in general terms the most important potential impacts;[56]
    - where possible and relevant, "quantitative screening criteria" i.e. metrics[57] and thresholds;
    - "qualitative screening criteria;"[58]

[56] For example, in the sub-sector hydro-power plant, screening issues would be: (i) loss of land/habitat fragmentation; (ii) greenhouse gas emissions (e.g. methane emissions from anaerobic decomposition of biomass in reservoir); and (iii) water shortages.

[57] A quantitative screening criterion for the "climate change mitigation" objective, for example, would be the green-house gas (GHG) emissions in gCO2e/kWh.

[58] A qualitative screening criterion for the "healthy natural habitats" objective, for example, would be that the project is not located in a Natura 2000 area and/or does not affect species protected under the Birds and Habitats Directives.

- additional requirements to be put in place in order to ensure the coherence of the development and use of the taxonomy; this will ensure that policy uses are properly impact assessed, and that the taxonomy (i) would not inadvertently lead to an undesirable diversion of investment activity, (ii) would not give rise to stranded assets, (iii) would not significantly hamper liquidity in financial markets, (iv) would not be disproportionately costly, (v) would not give rise to greenwashing, and (vi) is sufficiently clear so as to not create a litigious environment.

To understand the need for technical screening criteria, consider the example of a green bond issued by a construction company for a building that is energy efficient and thus, contributes to climate change mitigation – meaning that the environmental objective and the activity are clearly defined. Under Option 2, this bond would not qualify as it is not from an economic sector that in general can be considered green. On the contrary under Option 3, this activity would qualify. The technical screening criteria allow for the inclusion of green activities from brown sectors. Furthermore, the technical criteria would also provide for quantitative criteria against which the energy savings can be assessed, to ensure the extent to which the bond proceeds finance a project that truly contributes to climate change mitigation. In short, technical screening criteria could provide more flexibility and ensure a more level playing field within and between sectors, as they allow for more activities to be considered as environmentally sustainable, for the purposes of investments.

Under Option 3, similarly to Option 2, for economic activities to be included in the taxonomy, there has to be no serious conflict[59] with other EU environmental objectives ("do no harm" principle). In practice, according to this principle, an activity positively contributing to climate change mitigation can be considered environmentally sustainable if it complies with minimum requirements for the other 5 environmental objectives, as well as minimum social[60] and governance safeguards. This principle would help prevent situations whereby a mono-activity company, e.g. the producer of solar panels, would be considered green or sustainable even when - in an extreme situation - poor labour standards (i.e. use of child labour) are applied. This principle should be carefully calibrated for each activity so as to avoid cases of harmful trade-offs without unduly restricting the list of recognisable environmentally sustainable activities.

See Annex 8 section IV for an illustration of the taxonomy under Option 3.

The legal instrument envisaged under Option 3 would be a **regulation** which would notably set out a framework for the subsequent creation of an EU environmental taxonomy, laying down:

(i) the six EU environmental objectives to which activities must substantially contribute and to which they may not do significant harm;

(ii) empowerment of the Commission to operationalize these objectives (both in terms of substantial contribution and 'do-no-harm') through the development of technical screening criteria, through a series of delegated acts. These

[59] For example, biomass would have minimum requirements in terms of biodiversity and land use, e.g. hydropower would have minimum requirements in terms of biodiversity and water scarcity, e.g. geothermal energy may have minimum requirements in terms of water pollution, e.g. lithium battery production should source from lithium mines with sufficient employment standards).
[60] For example key international human rights and labour standards

technical screening criteria would be specific to macro sectors/sectors/sub-sectors and would lead to the identification of environmentally sustainable economic activities;

(iii) the requirements for determining the technical screening criteria at Level 2, such as being based on scientific evidence and ensuring that all relevant economic activities (within an economic sector) are treated equally if they contribute equally to one or more of the environmental objectives (see also section 5.6.2).

In particular, the framing of this empowerment would ensure that technical screening criteria, to be developed in delegated acts, were calibrated in a way that ensures that eligible activities:

- provide a substantial contribution to one or more of the environmental objectives
- fulfil minimum requirements in order to 'do no harm' to any of the other environmental objectives
- are assessed in a way that avoids, *inter alia*: (i) distorting competition, (ii) providing inconsistent incentives, (iii) hampering financial market liquidity, and (iv) increasing the risk of stranded assets.

Additional information on how the taxonomy would be gradually developed, including the provisions of these minimum requirements and the management of risks, is provided in section 5.6.2.

There are four main reasons for this phased approach (i.e. starting with a regulation, followed by a series of delegated acts - covering gradually the six environmental objectives). First, the gradual development of the taxonomy allows for the careful selection of economic activities that would qualify under the taxonomy, which ensures that all relevant economic activities within a specific sector can qualify and are treated equally if they contribute equally towards one or more of the environmental objectives laid out in the proposed framework. Second, the gradual and phased approach would ensure the taxonomy is sufficiently stable and mature, having been tested with and reviewed by relevant stakeholders before being applied and used for the purposes of relevant financial services legislation (e.g. for disclosure requirements by asset managers and institutional investors offering products pursuing environmental objectives – see Box 7). This also means that each extension and each use of the taxonomy would be subject to the relevant impact assessments. Third, the phased approach would allow for the timely adoption of delegated acts on environmental objectives that require more urgent action and for which knowledge is more advanced (climate change), enabling the EU to reach some of its sustainability goals more swiftly. Fourth, this phased approach ensures sufficient flexibility for revisions to reflect future scientific, technological and market developments.

Same as in Option 2, the regulation would include a review clause after three years of entry into force. This 3-yearly review[61] would evaluate the Regulation as a whole, including whether there is a need to enlarge the scope of the taxonomy to also cover EU social objectives and hence the definition of socially sustainable economic activities (see also Box 5).

[61] This review is separate from regular updating of the existing taxonomy (see section 5.6.2 for how the taxonomy would be developed and updated).

Box 5: A social taxonomy as a second step to get to a complete sustainable taxonomy

Option 3 as well as Option 2 focus on developing an environmental taxonomy. Both options include a review clause which explicitly foresees evaluating the appropriateness of extending the scope of the taxonomy to cover social objectives. The reasons to extend the taxonomy to social objectives only at a later stage are the following:

- The knowledge on how social objectives could be integrated in a taxonomy is not sufficiently developed at this stage for the Commission to commit to develop a detailed taxonomy in that area. Social is also arguably the politically most contentious area of sustainability.
- Given the urgency to act and address climate change concerns, there is a case for initially developing a taxonomy which identifies economic activities contributing to these objectives rapidly and extending it to cover social objectives at a later stage.
- In the case of Option 3, where the detailed taxonomy is developed in delegated acts, limiting it to environmental objectives in the first stage is an additional safeguard for co-legislators, as it limits and frames the empowerment and the content of the delegated acts within an area where scientific thinking is more developed.

Interaction of an 'environmental taxonomy' and a 'social taxonomy'

Given the existence of possible trade-offs in a given activity between environmental and social factors, the possible extension to social objectives should be impact assessed and calibrated as to minimise the possible impacts on companies.

As mentioned above, for an economic activity to be considered sustainable it will have to be either environmentally sustainable (with minimum social and governance standards) or socially sustainable (with minimum environmental and governance standards). Such an activity would not need to be simultaneously environmentally and socially sustainable, hence minimising the possible trade-offs and not unduly restricting the universe of investable sustainable activities.

Developing a taxonomy covering social objectives at a later stage could entail the risk that economic activities which would have been identified as environmentally sustainable in the first place, would then fall out of the scope of the taxonomy because they might harm one or several of the social objectives identified in the new taxonomy. Yet, this risk is limited, given that economic activities identified as environmentally sustainable in the taxonomy will already have to comply with minimum international standards, including social ones (*see details in Option 2*). Moreover, any economic activity identified as contributing to at least one of the social objectives will have to "do no significant harm" to the six environmental objectives.

In conclusion, a full sustainability taxonomy would include environmental and social objectives and the identification of economic activities contributing to those. The governance element (i.e. the G in ESG) would be included in the minimum safeguards as explained above but not as an objective per se as governance issues are horizontal by nature and cannot be attributed to any specific economic activity.

Table 15: Discarded options for an EU environmental taxonomy

Discarded options	**Reasons for discarding them**
Option 4 – Establishment of EU environmental taxonomy through soft-law (recommendation or communication)	• Self-regulation (i.e. market-led initiatives) would not address, and possibly even exacerbate, market fragmentation. • Need for a legally-binding EU taxonomy given the possible uses for other EU actions in the area of sustainable finance (e.g. product standards/labels, EU financial support for green investments, prudential capital requirements).
Option 5 – Fully fledged	• An EU taxonomy needs to be flexible in order to reflect future

EU environmental taxonomy with a high degree of detail in a Regulation	technological and other relevant developments; a detailed taxonomy enshrined in a regulation does not meet this condition. • Defining a detailed taxonomy requires know-how and time. This option would therefore delay the adoption of such a comprehensive taxonomy by several years, when the need to address current environmental challenges (such as climate change) is pressing.

5.6.2 How will the taxonomy be developed and updated (Policy Option 3)

Under Option 3, the taxonomy would be developed gradually through a phased approach. The proposed regulation would lay down the environmental objectives to which economic activities must substantially contribute and to which they may not do significant harm. The regulation would empower the Commission to operationalize these objectives through the development of technical screening criteria. These technical screening criteria would determine which economic activities would qualify as environmentally sustainable. The regulation would also frame this empowerment of the Commission, including setting out several requirements and important safeguards in developing the taxonomy through delegated acts. The regulation would lay down a review clause, which requires the Commission to publish a report evaluating whether the existing taxonomy remains fit for purpose and evaluating whether expansion to other sustainability objectives, such as social objectives, is appropriate.

The technical screening criteria for each environmental objective, covering both the criteria for what can be considered a 'substantial contribution' and for the notion of ‘do no harm’, would be developed through delegated acts, ensuring that a holistic approach is taken. Given the urgency to act and address climate change concerns, and the knowledge that has already been developed on this issue, there is a strong case for developing the technical criteria for the climate change mitigation and adaptation objectives first.

The expected timeline as well as the way the taxonomy would be developed, updated, and used is explained below.

Development and governance structure

Under Option 3, the proposal for a regulation would be adopted by the Commission in May 2018, and could be approved by the Council and the Parliament before the summer of 2019. The regulation, as explained above, would define the environmental objectives to which the economic activities must contribute to and to which they may do no significant harm, as well as the minimum social safeguards to which these activities must adhere.

The technical criteria for the six environmental objectives would be developed through delegated acts. Given the urgent need for climate change mitigation and adaptation, and given that most knowledge exists on these issues, the idea would be to first develop the technical criteria for these two objectives.

The goal would be to adopt the technical screening criteria for climate change mitigation

and adaptation as soon as possible, and ideally by Q4 2019.[62] This would allow the EU to, among other things, clarify better by year-end 2019 how private capital can contribute to the achievement of EU's 2030 targets agreed in Paris. In order to move swiftly, the Commission would commence work on developing the technical criteria immediately, building on the input of a technical expert group, which is to be set up.

After the adoption of the technical criteria for the first two environmental objectives, this short-term governance structure would be replaced by a longer term governance structure, which would allow for the development of technical criteria for the other four environmental objectives, as well as for updating the existing technical criteria for the original two objectives, should there be a need for that based on technical or other developments. Starting from 2020, the technical expert group (the short-term structure) would be replaced by a Platform bringing together experts from both the public and private sectors. More details on this approach are provided below and in Annex 8 (where alternative options were considered and budgetary implications to develop and maintain a granular taxonomy were estimated).

Short-term governance structure and political oversight for developing the first taxonomy-elements by 2019:

- The Commission sets up a technical expert group by Q2 2018 through an open process (public call already published), which would be tasked to elaborate a taxonomy of eligible climate change mitigation activities by Q1 2019. The work of the technical group will expand further to climate change adaptation and other environmental areas later by Q2 2019. The European Environment Agency (EEA), the European Supervisory Authorities (ESAs) and the European Investment Bank (EIB) are expected to be part of this group.
- The Commission launches by Q3 2018 a public consultation on a draft framework for an environmental taxonomy, the responses of which will feed into the technical expert group's work.
- In order to keep the co-legislators fully informed on the progress and the direction of travel taken by the technical expert group in the development of the environmental taxonomy, the Commission will report at least twice a year to:
    - EU Member States via a configuration of existing Member State expert groups or through a new expert group comprising representatives from national finance and environment ministries;
    - The ECON and ENVI Committees of the European Parliament.

  The feedback gathered in these meetings will be channelled to and inform the work of the technical expert group.[63]
- Relevant parts of the climate and environmental taxonomies will be presented to the Commission in the form of reports prepared by the technical expert group, with the support of a Commission secretariat.

Setting up of a new public-private platform steered by the Commission as of 2020

While the first taxonomy (i.e. the first list of environmentally sustainable activities with

[62] The timing of the first delegated act is dependent on the timing of the adoption of "Level 1"
[63] See also the safeguards section below.

the relevant screening criteria) on climate change adaptation and mitigation[64] (the first two environmental objectives on the taxonomy) is expected by 2019 with the adoption of the first delegated act, and would coincide with the end of the initial mandate for the Commission technical expert group, there is a need to put in place a more robust **long-term governance structure** to update the EU taxonomy and further develop it for other environmental areas and possibly even social areas. This also caters to the need of providing for adequate political involvement in the further development and/or adjustments needed for such a taxonomy.

To this end, the Commission would create a new dedicated public-private platform on sustainable finance. This Platform would be set up as a Commission Expert Group similar to the format used for the set-up of a multi-stakeholder platform on the implementation of the Sustainable Development Goals and supervised by a Commission Inter-Service Steering Group.

Its core function would be to develop technical criteria for the other environmental objectives, and update the criteria for the two original environmental objectives. In addition, if the review of the Regulation on taxonomy concludes that the EU taxonomy should be extended to social aspects, this Platform would be tasked to develop the missing parts in the EU sustainability taxonomy (to be presented to the Commission in the form of reports).

The Platform's additional tasks would include the promotion and monitoring of capital flows towards environmental and sustainable investments, providing advice to the Commission and EU Member States on their sustainable finance strategies, and fostering long-termism and transparency. It is expected that the core task of the Platform will gradually shift from developing and completing the EU taxonomy (including updates) to the role of an advisory and observatory body on sustainable finance over time.

Consequently, the Platform would contain two separate work streams. One work stream would be dedicated to the EU taxonomy and would be composed of public/private representatives/experts.[65] The other work stream would be responsible for the other tasks foreseen and would also comprise public and private sector representatives.

The Platform would have a full-time Chairperson. The Chairperson would be in charge of coordinating the Platform's output and reporting to the Commission Inter-Service Steering Group. The Chairperson would also ensure involvement of EU Member States and the European Parliament through regular dialogue/reporting.

A Commission Secretariat would support the work of the Chairperson and the public and private experts of the Platform. It would also ensure delivery of and consistency with the Platform's mandate.

Timeline for delegated acts

Assuming that the short-term governance structure delivers at least a list of activities (together with specific technical screening criteria) contributing to the first two of the six environmental objectives in 2019, it can be assumed that the Platform will be able to

[64] And possibly on other environmental areas

[65] Representatives from public sector bodies would include EEA, ESAs, EIB, Eurostat and other relevant agencies/ institutions. Private sector representatives/ experts would come financial institutions, academia, NGOs and other relevant stakeholders (including data providers/users). To the extent possible, representatives from the private sector would represent the sectors of the economy which would be most concerned by the taxonomy.

deliver every 18 months a report expanding the taxonomy by economic activities contributing to two additional environmental objectives, while updating the existing content (if need be). The provisional timeline foreseen for the adoption of the delegated acts would then be as follows:

- 1st delegated act by year-end 2019 on at least economic activities contributing to environmental objectives #1 climate change mitigation and #2 climate adaptation;
- 2nd delegated act by mid-2021 on environmental objectives #4 circular economy and waste management and #5 pollution prevention and control together with a revision/update of 1st delegated act;
- 3rd delegated act by mid-2022 on environmental objective #3 protection of water and marine resources and #6 healthy eco-systems together with a revision of the second delegated act – this would complete the EU environmental taxonomy;
- 4th delegated act by year-end 2026 on social objectives if review clause is successful – this would complete the EU sustainable (environment and social) taxonomy.

The timeline above is subject to many variables, including the speed of political negotiations (for both the regulation proposal in May 2018 and the review clause that could expand the scope to include social) and of course the time needed by the Platform to elaborate the technical elements. As such, it should be considered provisional. For example, on a more optimistic stance, it is possible that the scope of the first delegated act could also include environmental objectives other than climate change mitigation and adaptation and that already with the 2nd delegated act, the Commission (based on the work of the Platform) would be in a position to put forward a complete EU environmental taxonomy.

How the taxonomy will be expanded and updated.

As explained, under Option 3, the taxonomy would be gradually expanded, first developing the technical criteria for climate change mitigation and adaptation, and later for the other environmental objectives. In addition, the taxonomy (where technical criteria have already been established) would also be updated (as opposed to expanded) on a regular basis (whenever needed) in order to incorporate relevant technological or other developments. [66] Note that updating the existing taxonomy is different from the three-yearly review, which is meant to re-examine the content of the regulation as a whole (and not the technical screening criteria) as well as the potential need to expand the scope to other sustainability objectives.

The expansion is not likely to cause significant issues as a holistic approach would be taken. Moreover, the use of the taxonomy would not be mandated until it has reached sufficient stability and maturity (i.e. the application would be deferred by 6 months, after the delegated act has entered into force, providing for sufficient time to test the approach with stakeholders and ensure relevant financial market participants have a good

[66] Depending on the uses of the taxonomy, the regular updates might result into compliance costs for the investee companies and for relevant financial institutions as well as in enforcement costs if for example verification and certification mechanisms are foreseen. These costs would be estimated when the sectoral legislations referring to the taxonomy will be subject to an impact assessment.

understanding of the concept). As mentioned, the future first list of economic activities contributing to climate change mitigation and adaptation (which would be developed at Level 2 with the first delegated act) would also already take into consideration the other environmental objectives when employing the "do no harm" principle, which foresees the exclusion of activities causing substantial harm to any of the other environmental objectives. As such, the expansion to other environmental objectives (from #3 to #6) would not entail revisiting the previous version of the taxonomy, instead it would add further economic activities to it; or clarify to which extent economic activities already included in the list, e.g. for contributing to climate change mitigation (#1) would also qualify as environmentally sustainable because they positively contribute to e.g. natural habitats (#6). A regular update of the taxonomy (meaning the technical screening criteria) is however needed to reflect possible technological and scientific developments and is not linked to the expansion to additional economic activities contributing to further environmental objectives.

How much would it cost to develop and update the taxonomy?

The costs for developing and updating the taxonomy are reflected in the budgetary implications for running the Platform. There is no cost difference between developing the taxonomy in one single step versus doing so gradually through a phased approach: in both cases, the technical criteria would need to be developed.

Costs for progressively developing and maintaining an EU taxonomy over the longer-term, through the Platform on Sustainable Finance, concern two cost categories: administrative expenditure and operating costs.

The vast majority of costs concern administrative expenditure. European Commission services (DG FISMA, ENV, CLIMA) responsible for managing the Platform will have to provide permanent human resources to this task. In addition, European Supervisory Authorities (ESMA, EIOPA and EBA) which will play an important role in ensuring applicability of an EU taxonomy to financial products and coherence with EU financial legislation will need to be reinforced with qualified staff. EEA, which will assume a crucial role in respect to providing technical expertise across various environmental fields in the context of the Platform, will need to be equipped with qualified staff for this purpose.

In total, administrative expenditure of European Commission services and European bodies to carry out work on an EU taxonomy are estimated to be around EUR 9.7 million for a 4-year period starting from 2020. Additional operational costs of around EUR 0.8 million for a 4-year period will need to be budgeted, notably for the organisation of meetings of private and public experts, studies and IT infrastructure.

Once the operational set-up of the Platform has been elaborated in greater detail, more precise costs estimates would be available.

Currently, after having carefully considered the pros and cons, verification of compliance with an EU taxonomy is not foreseen and thus, potential verification costs are not reflected in the cost estimates. However, the Commission's legislative proposal will include a review clause as regards verification requirements at a later stage.

Moreover, it could be argued that not acting now on climate change implies an

opportunity cost. There is a strong economic case for a rapid low-carbon transition: the incremental capital cost of shifting investments for the IEA 66% 2°C scenario could be entirely offset as an integral part of a new growth model for low-carbon growth (OECD 2017a, OECD 2017b). There are clear negative macroeconomic implications of delayed action, and the cost of inaction has been assessed to be colossal,[67] including for financial institutions, such as banks and insurers who will be exposed to greater losses as a result of dwindling natural resources and weather-related disasters: between 2007 and 2016, economic losses from extreme weather worldwide have risen by 86% (EUR 117 billion in 2016) (IMF 2014) and it is estimated that close to 50% of the exposure of Euro area banks to risk is directly or indirectly linked to risks stemming from climate change.[68]

Framing of the empowerment: managing the challenges of building a taxonomy

As explained above, Option 3 lays down the framework for a process to develop the taxonomy over time. The proposed regulation on taxonomy would therefore foresee an empowerment to the Commission to specify the technical criteria and hence the determination of environmentally sustainable economic activities through a series of delegated acts. This empowerment is framed in terms of the requirements that need to be fulfilled when determining the environmental sustainability of an economic activity. First and foremost, these requirements mean that environmentally sustainable economic activities must:

1. contribute substantively to at least one of the six environmental objectives laid out in the proposal;
2. not harm any of the other environmental objectives extensively;
3. be carried out in compliance with a number of minimum social safeguards.

The technical screening criteria that would be developed are specific to the sub-sectors, so the proposal envisages that the Commission would specify qualitative technical criteria and quantitative technical criteria/thresholds (where applicable) through delegated acts. The proposal also defines certain requirements for how these technical screening criteria should be set at level 2: for example they would need to be based on available and conclusive scientific evidence, be proportionate to the nature and the scale of the economic activity, build on existing labelling and certification schemes, identify the most relevant potential contributions as well as the most relevant potential harms of the economic activity, and so on.

This approach is both **selective**, when ensuring that only activities with a substantive positive contribution to environmental objectives are considered, while remaining **flexible** as it does not limit the type of company or industry that can engage in such an activity. This means concretely that an economic activity that provides a significant positive contribution would be considered environmentally sustainable, even if it is carried out by a company from a traditionally 'brown' sector. Indeed, many of the economic activities with a large negative impact on the environment can also provide a

[67] From the public-sector perspective, 6°C of warming represents present value losses worth USD 43 trillion - 30% of the entire stock of the world's manageable assets. Source: The Economist Intelligence Unit (2015)

[68] Source: Battiston S., A. Mandel, I. Monasterolo, F. Schutze and G. Visentin (2017).

substantial contribution to environmental objectives, by reducing this impact. The proposed taxonomy caters for this possibility. For such economic activities, it is appropriate to set out technical screening criteria that require a substantial improvement in environmental performance compared, for example, to the industry average. On the other hand, for those economic activities that are in "green" sectors where the environmental performance is already quite high, such a principle would not apply as they all provide a positive contribution to a given environmental objective and therefore would be considered environmentally sustainable.

As explained also further down, the notions of "contributing substantially to sustainability" and "do no harm" would be made operational through secondary legislation when the technical screening criteria will be developed through a series of delegated acts. See below "Operationalizing ‘substantial contribution’ and ‘do-no-harm’: how it works" for an example.

There are a number of potential risks that could arise in the development of the taxonomy, which will also need to be appropriately addressed and acknowledged in the proposed framework. These include:

- the potential of unfairly disadvantaging certain sub-sectors over others (as the technical screening criteria would be specific to each sub-sector);
- difficulties in operationalising the key requirements eligible economic activities will have to fulfil (in particular with regards to the interaction between the criteria and existing Union legislation as well as the interaction between the notions of 'do no harm' and 'substantial contribution'). Such challenges, if they are not acknowledged from the outset, could lead to institutionalised greenwashing, undesirable diversions of investment activity, stranded assets, and illiquid markets;
- raising disproportionate costs when not giving market participants sufficient time to prepare for the entry into application of the taxonomy, thus increasing litigation risks.

For these reasons, the empowerment will need to be appropriately framed and demarcated. In order to address potential burdens, including the creation of litigation risks, on financial market participants, the proposed framework would not foresee any immediate uses of the taxonomy (see also box 7). The operational provisions of the framework would only be applicable 6 months after the entry into force of the first delegated act, and at the same time as its entry into application. This would ensure that the taxonomy has been sufficiently consulted with stakeholders, to create buy-in and a good understanding of its nature, before being applied.

The delegated acts setting out the content of the taxonomy would be impact assessed to ensure the criteria are reasonably easy to apply and verifiable within reasonable cost-of-compliance boundaries. Subjecting each expansion of the taxonomy to rigorous impact assessments will also tackle dangers of greenwashing, when ensuring that only truly environmentally sustainable activities are considered under the taxonomy. Moreover, any potential future uses of the taxonomy would be subject to their own impact assessments. The date of entry into application of any future uses of the taxonomy would be calibrated in such a way, so as to allow financial market participants to prepare for its application.

The framing will also lay out a number of requirements that the delegated acts will need to fulfil with regards to avoiding undesirable diversions of investment activity and not giving rise to stranded assets when properly assessing transition risk that may arise when

developing the taxonomy in stages. In order to appropriately address this risk, the framing will require the simultaneous development of the criteria laying out what can be considered a 'substantial contribution' to an environmental objective while at the same time clearly demarcating what would be considered to 'harm' any of the other objectives. The aim is that no activities are captured that will further down the line be no longer considered eligible.

Such assessments would also take account of existing EU legislation and policies: with regards to the notion of 'substantial contribution', the technical screening criteria would build on existing policies where possible, but go beyond what is required in existing legislation if necessary. Similarly, for the notion of 'do no harm', the minimum requirement, for instance in the area of protection of natural habitats, would be EU policies but technical screening criteria can be more stringent in areas, where there is no existing EU legislation.

In order to avoid distorting competition when raising financing for environmentally sustainable economic activities, the technical screening criteria will also be required to ensure that all relevant economic activities within a specific sector can qualify and are treated equally if they contribute equally towards one or more of the environmental objectives laid out in the proposal (a fair assessment of investments). It is recognised that the potential capacity to contribute towards these environmental objectives varies across sectors, which should be reflected in the criteria. However, within each sector, such criteria should not unfairly disadvantage certain economic activities over others if the former contribute towards the environmental objectives to the same extent as the latter.

For instance in the energy sector, assuming the objective is climate change mitigation through the stabilisation of greenhouse gas concentrations, this would mean that sub-sectors such as solar and wind energy would be treated equally. In order to achieve the objective of stabilising greenhouse gas concentrations, renewable energy sources like solar and wind energy, whose carbon emission should be low, would have to fulfil a number of criteria such as for example (without pre-empting the technical work preceding the adoption of the delegated act):, having in place the dedicated transmission infrastructure and support facilities and relying on no or minimal fossil fuel back-up. A sub-sector such as geothermal energy would have to comply with different criteria, as it is not by definition carbon-neutral but has the potential to substantially contribute to climate change mitigation, if developed further. So the criteria may entail requiring the direct operational carbon intensity of the geothermal power plant to be lower than a certain threshold, measured in gCO2 per kilowatt-hour, which is a criterion that would not make much sense in the renewables space, but ultimately achieves the same goal of stabilising greenhouse gas emissions. These and similar considerations will have to be taken into account in the establishment of technical screening criteria by the experts and will be part of secondary legislation put forward by the Commission and overseen by the co-legislators.

The framing will also emphasise the importance of ensuring market liquidity, even with the entry of green securities, so as to safeguard financial stability.

In monitoring and evaluating the actual impacts of the regulation, future evaluations will also analyse to what extent the specific safeguards proposed to mitigate possible risks on e.g. competition aspects, fairness, excessive costs, consistency of incentives, risk of stranded assets, impact on liquidity in financial market, and greenwashing have worked in practice, and determine whether any adjustments are needed in some areas (see also Section 7).

Finally, in terms of geographical scope, while climate change as well as many other environmental challenges have a global or at least transboundary dimension, impacts arising from climate change and environmental degradation as well as their solutions are often very local and context-specific. These issues will have to be taken into account when developing the taxonomy by either i) defining the environmental sustainability of an activity with reference to a national, regional, local or sectoral average (as applicable, depending on the nature of the activity) or ii) if these aspects are too pronounced, restricting the list of environmentally sustainable activities to those where location-/site-specific aspects are less pronounced. This choice will have to be subject to an impact assessment when adopting the various delegated acts.

Operationalizing 'substantial contribution' and 'do-no-harm': a practical example

Under Option 3, the Regulation would outline the environmental objectives, while empowering the Commission to develop the technical screening criteria. These technical screening criteria would operationalize these environmental objectives, both in terms of substantial contribution and do-no-harm. By way of example, for the objective of climate change mitigation this could work as follows:

1. An activity must contribute substantially to the stabilization of greenhouse gases (as required by the Regulation). Which economic activities would qualify would depend per sector. Thresholds would need to be determined per sector, and this would be established through the technical screening criteria. For example, for a hydropower plant, one screening criteria could be a required '% of GHG emissions saved' by avoiding substantial methane emissions from the anaerobic decomposition of biomass in reservoirs.
2. In addition, such an activity should not extensively harm the other five objectives and the specific requirements laid out therein. For example with regards to environmental objective #6 "Healthy eco-systems", the hydropower plant must not lead to significant habitat fragmentation, which could be determined by a technical screening criteria on 'maximum hectares of land use change' allowed. This criteria would take into account relevant legislative and non-legislative instruments of the Union such as in this case the Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

Furthermore, a number of minimum safeguards as laid out in the proposal would need to be met, in order to ensure that environmentally sustainable economic activities also comply with minimum international social and environmental standards and guidelines, such as the ILO Core Labour standards.

Box 6: How does the taxonomy reflect EU standards and legal commitments in the area of environment and climate change?

The development of the taxonomy will respect and, where relevant, incorporate existing EU standards and legal commitments in the area of environment and climate change. The approach complements existing policies as the latter, i.e. the existing standards and requirements, apply to actors in the real economy, such as manufacturers and other types of firms, aiming to regulate their environmental impact and performance. This is done by either setting minimum requirements for certain economic sectors or activities (e.g. Directive 2011/92/EU requiring environmental impact assessments for certain projects, Ecodesign Directive 2009/125/EC setting out minimum mandatory requirements for the energy efficiency of products); or by providing objectives at a higher level, e.g. the body of legislation on ambient air quality or National Emission Ceilings Directive 2016/2284/EU providing for air pollutant emission reductions at

national levels; EU Biodiversity Strategy COM(2011) 244, which aims to halt the loss of biodiversity and ecosystem services in the EU and help stop global biodiversity loss by 2020).

The taxonomy, on the other hand, will serve investors and financial markets. The aim of policy on sustainable finance, in particular the taxonomy, is to redirect capital flows to those activities that substantially contribute to environmental and climate policy objectives, going beyond alignment with minimum legal requirements. In order to ensure substantial contributions, the taxonomy would exclude activities that are clearly not sustainable, or that represent only marginal improvements, rather than the changes necessary to meet the EU's existing objectives for the environment and climate.

As explained in the problem definition, there is currently no clear framework defining what is sustainable and what is green, even though a number of market initiatives have emerged. However, a taxonomy developed through EU legislation will have an important impact on the financing, especially cross-border, of sustainable activities: just like energy labelling is guiding consumer choices towards energy efficient products, such a taxonomy would aim to guide investor choices towards investments in environmentally sustainable activities.

Box 7: An EU taxonomy: what it defines and how it will be used

A) Link between economic activities, companies and financial assets

Under Option 3, the regulation foresees the development of technical criteria for defining environmentally sustainable economic activities, for the purpose of establishing environmentally sustainable investments. The link between sustainable economic activity and sustainable investments is as follows:

- All financial assets (loans, bonds, shares) related to a company that engages only in sustainable economic activities (a 'mono-activity' company), will be considered sustainable investments.
- For companies that engage in both sustainable and non-sustainable economic activities, any of their investable financial assets could in two ways be considered sustainable investments:
  - First, through ring-fencing these sustainable activities, and issuing investable financial assets for the exclusive purpose of financing those sustainable activities.
  - Second by assessing to what degree (%) this company engages in sustainable economic activities, and assign this degree (%) to investments used to finance the entire company. This Regulation does not harmonise how exactly the degree of sustainability of a company should be determined. One way to do so is to use the turnover of the company, and determine the proportion of turnover that originates from sustainable activities as compared to other activities. A company with 50% of turnover from environmentally sustainable activities and 50% turnover from other activities is therefore 50% environmentally sustainable.

B) First uses of the taxonomy (with 6 months deferral after delegated acts)

The Regulation foresees two applications of the taxonomy. These applications are deferred until 6 months after the entry into force of the first delegated act, and subject to the impact assessment that will accompany each delegated act.

- Member States or the Union must apply the taxonomy when setting out requirements for financial market participants with regard to the labelling of financial products pursuing environmentally sustainable objectives.
- Financial market participants offering financial products as environmentally sustainable would have to disclose how and to what extent the criteria for environmentally sustainable economic activities are used to determine the environmental sustainability of the

investments selected for the financial product. This approach allows for the freedom for relevant financial market participants to invest into activities that they may consider to be 'green', other than those covered by the taxonomy, as long as such investments into these activities are duly disclosed.[69] The exact scope of the information required to comply with the disclosure obligation would be established in Level 2 measures, which will be duly impact assessed.

One way of calibrating such a disclosure obligation under level 2 would be to oblige fund managers offering funds claiming they are 'green', to indicate the following two aspects of the degree of environmental sustainability in the fund's pre-contractual disclosure document: The first aspect is the to disclose the proportion of companies that engage in environmentally sustainable economic activities. In practice this means that a fund manager investing half of the fund's assets in company A (which is 10% 'green' under the criteria) and the other half in company B (which is 90% 'green'), the disclosure will say that 100% of the net assets are invested into companies that carry out some environmentally sustainable economic activities. The second aspect of the disclosure is the overall degree of environmental sustainability of the entire fund / portfolio. Following the above example, given that half of the assets are invested in a company that is 10% environmentally sustainable and half of the assets are invested in a company where this figure is 90%, the overall degree of environmental sustainability of the investment portfolio is 50%.

The use of the taxonomy when designing the parameters of the methodology for selecting underlying assets for relevant benchmarks was considered but has been discarded for the time being.

C) Potential future uses falling outside the scope of this impact assessment

1)Standards and labels for financial products

Standards for processes or products typically define criteria (defining thresholds in some cases),[70/71] and/or set rules on transparency. For example, standards for green bonds such as the Green Bond Principles,[72] which are voluntary, are currently used to ensure that funding sourced through green bonds (use of proceeds) is used for green investments (as defined by the Green Bond Principles high-level taxonomy).[73] This is achieved via monitoring and reporting on the use of proceeds and a requirement to report on the expected effective impact. The Green Bond Principles also encourage the issuer to carry out an external review (so called 'second opinion') by an independent third-party verifier to check the alignment of the green bond with these principles, e.g. to verify the ‘greenness’ of investments that would be financed or refinanced via the green bond proceeds.

Labels for financial products formally recognise compliance with those standards. Labels thus help investors, in particular retail investors, to channel their funds into specific economic activities, In conjunction with an EU environmental taxonomy, an EU label for green investment products would, for instance, assure investors (institutional and retail) that products obtaining an

[69] When financial market participants consider as environmentally sustainable economic activities that do not comply with the technical screening criteria or for which technical screening criteria have not been developed yet, they would need to inform the Platform on sustainable finance.
[70] For example, a building would be considered as green under an ‘ecolabel’ framework only if it is passive or if it is a positive energy building.
[71] The Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling defines a new scale to rate for rating all EU products: from A (most efficient) to G (least efficient).
[72] Developed by ICMA (International Capital Markets Association).
[73] Ten broad categories.

EU label invest all or part of their assets (depending on the set threshold) in activities included in the EU taxonomy. Hence, there is potential merit in the use of the EU Ecolabel Regulation to create a **voluntary EU-wide labelling scheme for financial products**. Criteria and standards would have to be identified for specific financial products offered to retail investors (such as Packaged Retail Investment and Insurance Products).

An EU Ecolabel for green investment funds and other green financial products

An EU Ecolabel for green investment funds (and further green financial products at a later stage), under the EU Ecolabel legal framework, could harmonise green labelling across the EU and set quality standards by making reference to an EU taxonomy and unified criteria for granting the label. It could enhance transparency in the market and provide trust to institutional and retail investors who want to invest, through green investment funds, in environmentally sustainable economic activities.

Both elements in conjunction - an EU taxonomy and unified labelling criteria at EU level - are critically important to enhance transparency and build trust in the market:

- An EU taxonomy would be *the* reference point for an EU label for green investment funds. Green funds obtaining the EU label would need to select their investments included in their portfolio on the basis of green activities listed in the EU taxonomy. An EU taxonomy would clearly set out the common pool of green activities in which funds with the EU label can invest.

- The EU Ecolabel framework and governance structure, if applied to green investment funds (and later on to other green financial products), would allow setting common, harmonised rules and standards for granting the EU label for green investment funds while embedding national bodies in this process. The Ecolabel framework process foresees the development of labelling criteria for products based on advice by the EU Ecolabelling Board (includes national competent authorities from EU Member States and EEA countries as well as other stakeholders such as relevant European associations), established by Commission decision and approved by the Ecolabel Regulatory Committee.

As regards granting an EU label, national competent authorities in each EU Member State or EEA country, designated by EU Member States and EEA countries, would ensure that harmonised labelling criteria are met (consistent and reliable assessment; independent verification; compliance with international, EU and national standards) while allowing access to the EU label in a decentralised manner.

The harmonisation process between the existing national labelling schemes and the EU Ecolabel is embedded in the Ecolabel Regulation

The EU Ecolabel for green investment funds (and later on further green financial products) would set harmonised quality criteria, at EU level, across the EU while ensuring the same level of quality for national labels and allowing co-existence of national labels. Efforts are in place to improve coherence and harmonisation between the EU Ecolabel and nationally or regionally officially recognised eco-labelling schemes. At the same time, the REFIT report[74] highlighted that the EU Ecolabel Regulation delivers EU added value (to the extent limited by the voluntary nature of the scheme), by providing a framework for harmonised rules and procedures across the internal market, which enhances credibility and transparency to environmental claims and can support intra-EU trade.

The Ecolabel Regulation foresees that:

[74] Report from the Commission to the European Parliament and the Council on the review of implementation of Regulation (EC)No 122/2009 of the European Parliament and of the Council on 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS) and the Regulation (EC) No 66/2010 of the parliament and of the Council of 25 November 2009 on the EU Ecolabel - Brussels, 30.6.2017 COM(2017) 355 final.

- Once EU label criteria have been developed, any new national labels for the same product group must be at least as strict as the EU Ecolabel criteria; thus, an EU Ecolabel for green investment funds could set (high) quality standards for all future national labels (Article 11.1);

- For already existing national labels, for instance the French TEEC label, Luxflag or the Nordic Swan Ecolabelling, a certain degree of harmonisation is ensured as the newly introduced EU Ecolabel will take them into account (Article 11.2);

- Gradual harmonisation between an EU Ecolabel and national labels takes place through the EU Ecolabel process of developing criteria (EU Ecolabelling Board comprising national competent bodies). This would therefore reduce possible confusion in the market while ensuring at the same time that high quality standards set at EU level will be respected.

2) *Uses by market participants*

a) Duties towards investors/beneficiaries: taxonomy would be a useful interpretative and didactic tool for all relevant entities to support the integration of environmental factors in their investment and advisory process;

b) European Long-Term Investment Funds: the EU taxonomy could be used as a reference to create a new class of eligible green assets under the ELTIF Regulation. This class of assets could encompass investments in projects and companies (with a limited market capitalisation) supporting the activities included in the EU taxonomy.

c) Prudential rules: in the banking sector, one way to create incentives for 'green' lending would be to amend capital charges associated with 'green' investments and loans. Any specific adjustment to prudential treatment (also called the green supporting factor) would need to be based on a legally enforceable EU taxonomy.

3)EU spending programmes supporting climate and environmentally friendly investments

The EU taxonomy could be used in the context of future EU spending programmes supporting sustainable investments. For example, the InvestEU Fund foreseen under the next Multiannual Financial Framework starting in 2021 will be key in contributing to mobilise private investment alongside public spending for supporting sustainable projects. Thus, it could be envisaged that the InvestEU fund as well as other future EU spending programmes supporting environmentally sustainable objectives will build on the proposed Taxonomy for determining what qualifies as environmentally sustainable activity."

4)Member States' National Energy and Climate Plans (NECPs)

According to the Commission proposal of 30 November 2016 for a Regulation on the governance of the Energy Union, EU Member States would be requested to establish National Energy and Climate Plans (NECPs) to ensure that the EU as such – and Member States for their part – achieve EU 2030 Climate and Energy targets. In those NECPs, each Member State should outline national objectives and policies consistent with EU goals. Those NECPs would also be a way of creating longer-term certainty of the national energy and climate policy of each Member State. They would include investment needs (energy mix) which could signal to investors (in particular those interested in renewable energy projects) which investments a country intends to make until 2030. NECPs are expected to be in place by 2021 and, from then onwards, be reviewed/updated every year. The EU taxonomy could be useful in this context, insofar as it would give Member States guidance on those activities that could contribute to achieving the EU's climate and energy goals. However, governance aspects of the Energy Union, including NECPs, are still to be negotiated with co-legislators and the extent to which NECPs will become a binding instrument for Member States is not decided yet.

5.6.3. Pros and cons

Table 16: Pros and cons for options on EU sustainability taxonomy

	Pros	Cons
Option 2	• As the taxonomy is sufficiently high-level to be rapidly enshrined in law, it provides immediate clarity and coherence throughout the EU as to which macro-sectors, sectors and sub-sectors contribute unambiguously to the EU environmental objectives set out in the directive. • The review clause every three years allows (i) updating the taxonomy to reflect technological developments and (ii) broadening the scope to potentially encompass social objectives. • The exclusion of certain controversial sectors[75] from this taxonomy would avoid lengthy discussions, while local specific situations and needs could still be addressed by a more granular taxonomy at national level. • Appropriate signals are sent to economic actors, as the EU taxonomy provides a concrete translation of the EU environmental priorities, as opposed to the currently existing (and diverging) taxonomies that are either government or private sector-led and thus reflect different priorities. *See Annex 8 section VII for a mapping of existing taxonomies and definitions of green.*	• Current fragmentation is only partially addressed with this option, and in fact risks to further increase given the possibility for Member States to adapt and complement the taxonomy at national level. • The scope of this taxonomy is very limited. As it covers only those sectors with a clear positive impact on a given environmental objective, it systematically excludes activities that do not fall under one of the sectors defined eligible in the taxonomy but which may still have a significant potential for becoming greener. Therefore, it limits the degree of sustainable transformation of the economy (i.e. the greening of the whole economy, including "brown" sectors). • The lack of more granular criteria (screening criteria and metrics) raises doubts about (i) how green the taxonomy really is[76] and (ii) what the contribution is to a given EU environmental objective – the lack of measurable impacts also makes the collection and monitoring of data more difficult. This hampers the benchmarking of green performance. • This taxonomy is not detailed enough to be built upon for other sustainable finance initiatives (e.g. product label and standards, green supporting factor, etc..).
Option 3	• Clear and harmonised technical screening criteria provide the basis for a common language on environmentally sustainable activities,	• Given the level of detail, this taxonomy needs more maintenance in order to keep up with technological and other relevant developments. This

[75] An example of a controversial sector is nuclear energy, which is included in few taxonomies (FTSE Russel's Low Carbon Economy Industrial Classification System and S&P's Global Ratings Green Evaluation), but explicitly excluded by others. Clean coal, natural gas and bio-fuels/bioenergy are also controversial sectors. Source: European Commission (2017d).

[76] It might favour companies in a sector defined as green even if they have a poor environmental performance (e.g. a waste management company that does not dispose waste in a proper/green friendly way).

	thus addressing the current market fragmentation and bringing the needed clarity for investors as to what green activities are, hence lowering search costs for investors. • The screening criteria and metrics also bring clarity about the contribution of a certain activity to a given EU environmental objective. Measuring impacts, collecting data and monitoring is made easier. • Screening criteria and metrics provide a first basis for comparison between companies.[77] • The scope of this taxonomy is broader than the scope foreseen under Option 2. In fact, by covering activities in sectors that are not considered 'green' by themselves but which have the potential to contribute to a given environmental objective, it contributes to the greening of 'brown' sectors. • A detailed taxonomy at EU level provides a sound basis for implementing EU policies to support sustainability (e.g. through financial support of projects or activities falling under the taxonomy, development of standards and/or labels through the Ecolabel framework, and possibly ultimately a green supporting factor). • The full detailed environmental taxonomy will be built over time based on scientific evidence and with the input and expertise of public and private stakeholders. This will ensure the development of a commonly agreed language. • The gradual development of the taxonomy (i.e. starting with climate change and other environmental areas	requires the need to rely on the input of experts and various stakeholders, making this a resource and time intensive exercise for the regulator. • Establishing a full detailed environmental taxonomy with criteria, metrics and thresholds is a relatively long process. • The high level of technical expertise needed to maintain and develop the taxonomy requires the use of delegated acts, over which the co-legislators have less control. This prompts the need to provide for appropriate framing in the process (*see section 5.6.2 and Annex 8 sections 4 and 5 for a discussion on governance and framing*). • The gradual development of the taxonomy (starting with climate change and other environmental objectives on which knowledge is already thorough, then expanding to possibly also cover social objectives) means that those activities[78] covered in the first phase will receive more attention and possibly more investments than those which will be included at a later stage. • If screening criteria and metrics are too detailed and too stringent, the taxonomy developed under Option 3 might result in a lower voluntary take-up by stakeholders, defeating the purpose of the initiative. • If screening criteria and metrics are too detailed and too stringent, costs of compliance and verification could also potentially too burdensome. • The level of detail and technical expertise required runs the risk of

[77] For example, these could feed into a possible future development of Environmental Accounting and Reporting standards, as recommended by the HLEG (2018). Environmental Accounting and Reporting standards would be a way to measure the environmental performance of any asset, company or activity in a more granular way. Because of their granularity (going beyond and complementing the taxonomy's binary classification – green vs non-green), these standards would allow comparison and ranking of companies, and will improve transparency on sustainability.

[78] For example, those activities positively contributing to "climate change mitigation (EU environmental objective #1) as opposed to those contributing to "circular economy and waste management" (EU environmental objective #4).

	on which knowledge is already thorough) is in line with the EU agenda to tackle first the most urgent sustainability issues. • The gradual development would also ensure the taxonomy is sufficiently stable and mature, before being applied. This feature also helps to ensure fair treatment of all relevant economic activities within a specific sector. • Appropriate signals are sent to economic actors, as the taxonomy provides a concrete translation of the environmental priorities of the Commission (same as Option 2).	missing the mark and potentially undermining the positive impacts expected from developing a taxonomy at EU level. Regular updates could partially address this point as there would be the chance to correct mistakes. • Developing a detailed taxonomy at EU level is a challenging task politically technically and operationally. The official final list of activities considered as environmentally sustainable could be contested by certain economic operators, especially if their industries and sectors are excluded. Regular updates and involvement of stakeholders in the process of the development and adjustment phases (e.g. Platform will be composed of public and private sector members; public consultation and impact assessment before delated acts) should ensure a certain degree of fairness and equal treatment of sectors and economic activities. This could therefore partially mitigate this risk. • While regular updates of the taxonomy would take into consideration technological and scientific advances and would correct possible mistakes and ensure fairness and equal treatment of economic activities, it might also lead to changes in asset values of a given sustainable investment (depending on whether a given economic activity falls in or out of the list or whether the technical sustainability criteria for that economic activity is made more or less stringent). These changes would however only occur when technological progress or new conclusive scientific evidence becomes available. Therefore, rather than directing the market, the taxonomy will simply reflect the state of the technological progress. In other words, if a given asset becomes 'stranded', this will be a reflection of the technological and market developments and not a direct result of the taxonomy. • The taxonomy, once developed, could also have a negative impact on a

		liquidity in financial markets (in particular for those assets that were considered sustainable under voluntary market practices). • If the taxonomy is not sufficiently clear, applicable and easy to use, it could give rise to litigation costs.

5.6.4. Impact on stakeholders

As explained in section 5.6.2, the proposed approach would identify requirements with which an economic activity must comply in order to be deemed environmentally sustainable, namely: contribute to one or more of the EU environmental objectives; not do harm to other EU environmental objectives; adhere to minimum social and governance safeguards; and comply with technical screening criteria. As previously described, this 4th condition will be developed through delegated acts, and will determine the list of environmentally sustainable activities with the desired level of granularity and will operationalize the notions of "substantially contributing" and "do no harm".

The taxonomy would apply to (i) Member States when setting out requirements for financial market participants with regard to the labelling of financial products pursuing environmentally sustainable objectives, and to (ii) financial market participants offering financial products as environmentally sustainable, as they shall disclose how and to what extent the criteria for environmentally sustainable economic activities are used to determine the environmental sustainability of the investments selected for the financial product.

However

- until the technical criteria are developed by the Commission, these uses do not yet apply. The development of the technical criteria through delegated acts, is subject to impact assessments.
- the details for how financial market participants are to disclose their information, will be developed through its own delegated act, also subject to an impact assessment.

In short, when the technical criteria are developed through subsequent delegated acts, and the taxonomy becomes more granular, thorough impact assessments would be carried out. Nevertheless, **some preliminary minor qualitative impacts are presented in this section[79] with the use of a scale assessing the magnitude of the impact as compared with the baseline scenario (the baseline being indicated as 0): ++ strongly positive; + positive; -- strongly negative; - negative; ≈ marginal/neutral; ? uncertain; n.a. not applicable.**

Table 17: Impact on stakeholders of options on taxonomy

[79] See also Box 7 (section 5.6.2.) – Section B.

Impact	Financial institutions	End-investors	Member States / EU
	Option 2 – Minimum harmonization environmental taxonomy with medium level of granularity		
Positive	(+) Limited level of granularity makes the taxonomy less dependent on technological and other developments, minimising the risk that assets become stranded due to unforeseen policy changes (such as a stricter environmental policy). This might make the voluntary use of the taxonomy attractive to a broader range of investors.	(≈/+) Lack of clarity on what are sustainable economic activities addressed to a limited extent, as a taxonomy under this option would identify sectors that provide a unambiguous contribution to common EU environmental goals. This could help investors to identify sectors that contribute clearly to sustainability.	(+) Some level of harmonisation would be achieved (all countries would have a taxonomy in place which sets a minimum level), while giving flexibility to Member States to complement the taxonomy in order to better reflect national priorities.
Negative	(-) Financial institutions that want to target sustainable investments still need to do a case-by-case assessment of whether specific activities in a given sector can be considered as green. This would entail both costs and some subjectivity in the selection process (as a given activity might be considered green by one financial institutions, but not necessarily by others).	(-) Risk of greenwashing not fully addressed as end-investors can invest (either directly or through their intermediaries) in companies in a sector which is defined as green under the taxonomy, while some of those companies might have a poor environmental performance.	(-) National discretions increase fragmentation inside the Single Market. (-) Due to the limited level of granularity, the taxonomy might not provide the most optimal contribution to the EU sustainability objectives, as it would exclude activities and projects in non-eligible sectors which have a large transformation potential (i.e. greening of brown sectors).
	Option 3 – Fully harmonized environmental taxonomy with high level of granularity		
Positive	(++) Financial institutions would benefit from a clear definition of 'green'. This would help them to integrate environmental factors in their investment decision making process and to identify green investments at a low cost. This would be especially the case for those financial institutions (the majority) which have not yet developed their own	(+) Lack of clarity on what are sustainable investments is partially addressed as the clarity on what are sustainable activities would help end-investors identify sustainable activities they could invest in. (+) The phased approach ensures the taxonomy is sufficiently stable and mature before being applied, thus	(++) Maximum level of harmonisation achieved as all EU countries would have the same taxonomy in place, with the same common environmental objectives (set at EU level). (++) A detailed taxonomy harmonised at EU level gives more weight to the EU at a global level, both politically and

	understanding and definition of 'green'. (+) The phased approach ensures the taxonomy is sufficiently stable and mature before being applied, thus minimizing/avoiding any potential negative impact from lack of clarity or uncertainty.	minimizing/avoiding any potential negative impact from lack of clarity or uncertainty.	economically. (++) The phased approach allows for the adoption of technical criteria for those environmental objectives that are most urgent and for which knowledge is most developed, before the technical screening criteria for other objectives have been developed, allowing the most urgent EU objectives to be tackled first. (++) The phased approach allows for a fair assessment of investments and economic activities, ensuring that all relevant economic activities within a specific sector can qualify and are treated equally if they contribute equally towards one or more of the environmental objectives laid out in the proposed framework (++) A detailed taxonomy provides a sound basis for the development of EU policies to support sustainability, making it easier for the EU to be ambitious in this area.
Negative	(≈/-) For those financial institutions which already have developed and adopted a detailed taxonomy, the (voluntary) use of the EU taxonomy might entail costs (although the associated costs are likely to be lower than the savings derived from maintaining an own taxonomy, and in any case lower than the benefits expected from		(-) Developing such a taxonomy will take time and resources, which will also have an impact on the EU budget (*see Annex 5 – "governance and process" section*).

	using this taxonomy).		

Options 2 and 3 would also indirectly affect issuers. Option 2 would incentivise issuers to disclose information as regards their environmentally sustainable economic activities. Option 3 would further incentivise issuers to disclose information as regards screening criteria. Investors would have to use such information to determine if an activity can be considered as environmentally sustainable. Nevertheless, it is not expected that issuers would face important additional burdens, as those who carry out eligible economic activities are expected to have this information already available. This information will be part of their business model and would be used to market their products or services. In any case, it will be up to the issuer to decide whether the benefits of demonstrating that their activities are sustainable (in terms of, for example, attracting new and cheaper capital) outweigh the cost of providing a limited number of data points.

5.6.5. Stakeholders' views

The table below summarises the views of stakeholders based on the results of the public consultation on the Interim Report of the High Level Expert Group on sustainable finance and targeted interviews conducted by the Commission with financial institutions (*see Annex 2 "Stakeholder consultation" for more details*). Stakeholders were asked what an EU taxonomy should cover, whether they saw a need for regulatory intervention and what the initial scope of an EU taxonomy should be.

Table 18: Stakeholders views on an EU taxonomy

EU (regulatory) intervention	**Scope**	**Level of detail**
The large majority of respondents supported the development of a taxonomy at EU level. A large number of stakeholders underlined that an EU taxonomy should build upon, or at least take into account, existing international frameworks (UN SDGs) and classifications (Climate Bonds Initiative, Eurosif, TCFD, etc.).	A majority of the respondents indicated that an EU taxonomy should eventually cover all sustainability objectives (E, S and G). Some respondents favoured a step-by-step approach starting with environment.	Stakeholders had diverging views on the level of detail an EU taxonomy should have. While the financial industry generally favoured a non-prescriptive taxonomy, other stakeholders (private individuals and civil society) preferred a more detailed taxonomy, providing clear definitions and (measureable) criteria.

See Annex 8 Section VII for a more detailed overview of stakeholders' views.

5.6.6. Comparison of the policy options

This section assesses the policy options in terms of their (i) effectiveness in addressing the three specific objectives set out in section 3, (ii) their efficiency, and (iii) their coherence. Lastly, this section calculates a score for each of the three policy options, adding up the results from the assessment of the impact on the various stakeholders in section 5.3.5.

Table 19: Benchmarking policy options on taxonomy

	Effectiveness			**Efficiency**	**Coherence**	**Score**[80]
	Objective 1	Objective 2	Objective 3			
Option 1	0	0	0	0	0	0
Option 2	+/≈	≈	+	≈	+	2.5
Option 3	+	+/≈	++	-	++	4.5

Note: Magnitude of impact as compared with the baseline scenario (the baseline is indicated as 0): ++ strongly positive (score 2); +/++ very positive (score 1.5); + positive (score 1); +/ ≈ marginal positive (score 0.5); – – strongly negative (score –2); –/– – very negative (score –1.5); – negative (score –1); ≈/– marginal negative (score – 0.5); ≈ neutral.

Effectiveness: Option 3 is the most effective in reaching the three specific policy objectives as:

Policy Objective 1: Reorienting capital flows

- it's more granular than Option 2, allowing for more sectors and activities to qualify under the taxonomy than Option 2, thus being able to have a bigger impact on reorienting capital flows.

Policy Objective 2: managing financial risks

- it supports the integration environmental objectives by institutional investors and asset managers in their investment/advisory process by providing a common language (EU environmental objectives, screening criteria and metrics);
- in addition, it is likely to indirectly reduce the lack of information from issuers, as companies will be incentivised to report which of their activities according to the taxonomy can be defined as green or sustainable, which will also facilitate the integration of ESG factors by institutional investors;

Policy Objective 3: fostering transparency

- it increases transparency for end-investors by introducing a common language on what is green or sustainable and by incentivising relevant entities to disclose sustainable-related information in accordance with this language, allowing for easier comparison by end-investors of the disclosed information.
- it provides full clarity on which activities are green (and eventually sustainable).

Option 2 is less effective in terms of reaching the specific policy objectives as it provides less clarity on what are sustainable activities compared to option 3 and has no clear or only a marginal[81] effect on the other objectives.

[80] The score is calculated summing all the + (=1); -(=-1) and +/≈ (=0.5) across the assessing criteria.

[81] A minimum harmonisation EU taxonomy (option 2) could have a marginally positive effect in relation to specific Objective 1, as it would indicate which sectors are considered green, which could assist relevant entities in identifying assets with a minimal environmental risk.

Efficiency: Option 3 is more costly than option 2 as the taxonomy needs to be (further) developed with the input of experts and various stakeholders, making this a resource and time intensive exercise for the Commission. Furthermore, the taxonomy under option 3 will need more maintenance in order to keep up with technological and other relevant developments. To fulfil these tasks, there is a need to set up governance arrangements, which will require budgetary resources. See Annex 8, section IV for more details on the governance.

Coherence: Both Option 2 and 3 are in line with the HLEG final report recommendation stating that the taxonomy should be developed as a matrix having EU objectives as columns and eligible sectors as rows (HLEG, 2018). However, option 3 goes a step further by going into more detail (i.e. eligibility criteria at the level of the activities), as also recommended in the HLEG final report. Option 3 is also more in line with the position of the ECON – as reflected in the first Draft of the ECON Report on Sustainable Finance.[82] Lastly, while there are no EU policies specifically covering the subject matter with which coherence could be assessed, both options are in line with the EU commitment to sustainable development by ultimately channelling more investments into sustainable economic activities. However, as explained above, option 3 is expected to be more effective than option 2 in achieving this commitment.

Having established how the options score in terms of effectiveness, efficiency and coherence, table 20 also highlights how the two options score in terms of the level of **stakeholder support and overall level of regulatory ambition**

Table 20: Summary of pros/cons of options on taxonomy

Option	**Effectiveness/ efficiency/coherence** (score)	**Stakeholders support**	**Level of ambition/challenge**
Option 2	2.5	High	Medium
Option 3	4.5	Medium/High	High

Option 3 is the preferred option given that it is the best way forward in view of the analysis of the comparison of options in terms of effectiveness, efficiency and coherence in Table 20. It scores higher on effectiveness and coherence. It is also generally supported by stakeholders. It also entails the highest level of ambition. The latter is necessary in order to maximise the contribution of the EU taxonomy towards achieving the EU sustainability objectives.

The benefits of the phased approach are *inter alia* that the gradual development of the taxonomy (i) allows for the careful calibration of economic activities that would qualify under the taxonomy, which ensures that all relevant economic activities within a specific sector can qualify and are treated equally if they contribute equally towards one or more of the environmental objectives laid out in the proposed framework; (ii) ensures the taxonomy would be sufficiently stable and understood by relevant market participants

[82] In so far, as it calls for inclusion of "activities that can accelerate a positive transformation and support ecological regeneration" and a setting up of a multi-stakeholder process to establish by the end of 2019 a robust and credible green taxonomy.

before being applied; (iii) allows for the adoption of delegated acts on environmental objectives that require more urgent action and for which knowledge is more advanced, enabling the EU to reach its sustainability goals more swiftly; (iv) provides sufficient flexibility to allow for the necessity of being updated to reflect future scientific, technological and market developments.

This proposal complies with the principle of proportionality as set out in Article 5 TEU. The proposed measure is necessary to achieve the objective of providing clarity to investors by harmonising at Union level the criteria used to determine the degree of environmental sustainability of an investment. Providing common criteria will enable investors to more clearly identify the degree to which an investment is environmentally sustainable, and compare such investments, including across Member States. The measure is furthermore proportionate, as the taxonomy will not be applicable immediately, and as the final impact of the taxonomy and of its uses is subject to impact assessments.

The option is positively evaluated based on the analysis of 'Pros' and 'Cons' in Table 16. A number of requirements for framing the empowerment to develop technical screening criteria are foreseen in view of the risks associated with the option: ensuring the taxonomy is sufficiently tested and mature before being applied, ensuring the taxonomy would not inadvertently lead to an undesirable diversion of investment activity, would not give rise to stranded assets, would not significantly hamper liquidity in financial markets, would not be disproportionately costly, would not give rise to greenwashing, and is sufficiently clear so as to not create a litigious environment.

5.7. A methodology for low carbon benchmarks

5.7.1. Description of the policy options

The proposal to create a harmonised methodology for environmental benchmarks aims to improve the quality of market tools available to asset managers and institutional investors to comply with their fiduciary duties and to better measure the performance of their low carbon strategies. In effect, asset managers and institutional investors are meant to select, as part of their duties, a reference index (where appropriate) taking into account the fund/portfolio investment strategy and in compliance with the investor's mandate. The lack of appropriate and objective low carbon benchmarks for passive investment strategies or as a performance benchmark for active investment strategies were identified during targeted consultations.

Different categories of low carbon indices have emerged in the marketplace. While some benchmarks deal with the objective to lower the carbon footprint of a standard investment portfolio, others target only components that specifically contribute to the 2° degree objective set out in the Paris Agreement. Despite the different strategies, these benchmarks are commonly classified as 'low carbon' benchmarks. This increases 'greenwashing' risks, as current disclosure of methodologies is heterogeneous and does not allow for effective comparison for investment purposes.

As a consequence, the Commission proposes to evaluate possible regulatory interventions to introduce a clear distinction between the low-carbon benchmarks or 'decarbonised' benchmarks and 'positive carbon impact' benchmarks. In this regard, where asset managers and institutional investors use these benchmarks to comply with their duties, they need to (i) ensure consistency of exposures to sustainability between portfolios/funds (both active and passive) and their referenced low carbon indices, and

(ii) disclose information to end-investors on such consistency (see Option 3b on disclosure, section 5.5). As, by definition, passive strategies aim at replicating a referenced index, the exposure between the two would normally be consistent. For active strategies, consistency of the exposure across portfolios and their associated low-carbon benchmarks would be assessed by measuring the tracking error or the ratio between the market value of the securities that are in the low carbon benchmark and the market value of the securities in the parent index.

A harmonised methodology to select constituents of low carbon indexes *(*see annex 9 on the methodologies of low carbon benchmarks*)* would achieve the following objectives:

- to provide investors with a **more effective tool** to achieve the 2° Paris objective.
- to foster a **generally accepted market standard** to measure a company's carbon footprint and, in turn, an investment portfolio's carbon footprint;
- to ensure that this standard methodology provides **forward-looking metrics** with respect to firm's current exposure to expected climate risk, and,
- to **improve transparency of the methodologies**. Index providers would be asked to provide details of the amount invested in the components of the index and on their weights, in order to help asset managers and investors to better understand the characteristics of the low carbon index. **This could also provide an incentive for corporates to improve their disclosure**.

Option 1: do nothing. See baseline scenario in section 5.1.

Option 2: Minimum standards and greater disclosure of the methodology used for 'decarbonised' indices

The basic construction principle of existing decarbonised benchmarks is to take a standard benchmark, such as the S&P 500 or NASDAQ 100, and remove or underweight the companies with relatively high carbon footprints.

"Decarbonisation" of a parent index involves both minimizing exposure to carbon risk, by completely divesting from a company with a carbon footprint exceeding a given threshold, but also reweighting the remaining index components to minimize the tracking error between the decarbonized index and the benchmark index. As long as carbon risk remains unpriced by the market, the two indices may generate similar returns, thus achieving no or minimal tracking error. But once carbon risk is priced or is expected to be priced by the market, the decarbonized index could start outperforming the benchmark. Therefore, these indices are suitable for long-term passive investors who seek long-term returns investing in a broad universe of companies.

In terms of environmental impact, decarbonisation of investment portfolios is still expected to be aligned with a temperature rise of 4-6° C (in contrast to the 2° C objective) as they mainly reproduce the universe of the parent benchmark.

This Option would **harmonise the key elements of the methodology of 'decarbonised' indices at EU level ensuring compliance with minimum standards**. The enhanced transparency would increase the comparability of the methodology and, thus, reduce the possibilities for greenwashing.

This Option would both:

(i) improve the transparency of the benchmark's administrator methodology, and,

(ii) set up minimum key elements of the methodology used to determine a decarbonised benchmark by providing details on:

- the integration of climate-related parameters;
- the description of the constituents of the benchmark; and,
- the criteria used for selecting and weighing them.

This Option could leverage on existing European methodologies approved by the Commission and largely used by corporate companies to calculate their environmental performance such as the Product Environmental Footprint (PEF) and the Organisation Environmental Footprint (OEF).[83] Moreover, this Option would be enshrined into law by amending the EU Benchmark Regulation with the addition of a new chapter establishing a new category of benchmarks. The amendment would include an empowerment for the Commission to define the minimum key elements of the methodology.

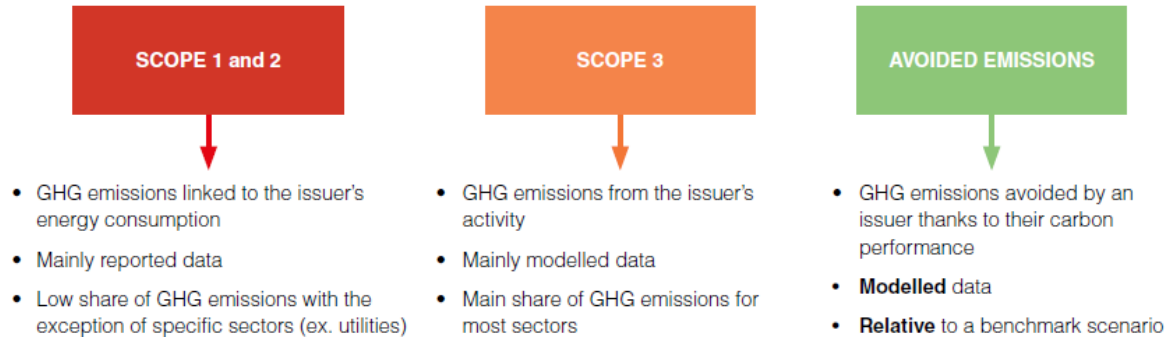
Option 3: Harmonised EU rules for 'positive carbon impact' indices

Under this Option, the Commission would create a harmonised set of rules covering 'positive carbon impact' indices (also called, 'pure-play' low carbon indices) at EU level.

Pursuant to the EU methodology, these indices would have to screen the entire investible (listed) universe of companies **selecting those companies whose emissions savings ("avoided emissions") exceed the emissions they are responsible for ("induced emissions")**.

For avoided emissions and induced emissions, the EU methodology would require calculation of **scope 1, 2 and 3 emissions as defined in the figure below.**

Figure 5: carbon emissions



Source: Forum pour l'investissement responsible
** See Annex 9 for a detailed explanation of Scope 1, 2, 3 induced emissions*

Such an index would most likely comprise only companies that, despite a residual carbon footprint, are engaged in the development of technologies that contribute to a significant reduction of carbon footprint. Companies that are likely to emerge as having **the most favourable savings versus footprint ratios (Carbon Impact Ratio or "CIR"- avoided emissions divided by induced emissions, see Annex 9**) are renewable energy producers or manufacturers that sell equipment whose use contributes to a reduction in the carbon footprint that stems from the production of energy.

Companies within this category would be net-emission savers (thus their CIR value

[83] Recommendation 179/2013 adopted by the College on 9th April 2013 and published on the OJEU on 4th May 2013.

would exceed a ratio of 1). It is likely that only investment in companies with such carbon emission profiles could be considered aligned with efforts to cap global warming at 2°C[84].

This Option would be achieved by amending the EU Benchmark Regulation, through the insertion of a chapter establishing a new category of benchmarks. The Benchmark Regulation would also include an empowerment for the Commission to further specify minimum standards for harmonising the methodology on how to apply the selection criteria. In order to define the above standards, the Commission would use the advice of the technical expert group on sustainable finance set up by the Commission in April 2018.

Option 4: Harmonised EU methodology for low-carbon and positive carbon impact indices

This Option envisages the introduction of harmonised rules for (1) low-carbon indices ('decarbonised' standard indices) and (2) ‘'positive carbon impact’ indices (or 'pure-play' low carbon indices). Hence, compared to Options 2 or 3, this Option would provide investors with a wider choice of indices based on harmonised standards for their methodology. Furthermore, it would enhance transparency and comparability at the same time, as it would require administrators of low-carbon and positive carbon impact benchmarks to disclose the total carbon-footprint exposure of their underlying assets or the estimated impacts on climate-change mitigation according to common standards.

This Option has been split in two sub-Options.

Sub-option 4a: according to the approach set forth in this sub-Option, the new framework would introduce **minimum standards** for methodologies applicable to low-carbon indices and ‘positive carbon impact’ indices. This Option would set up minimum key elements of the methodology used to determine decarbonised benchmarks and 'positive carbon impact' benchmarks, providing standards for the criteria and methods used to select and weigh the underlying assets of the benchmark. It would also allow for the calculation of the carbon footprint and carbon savings associated with the underlying assets, leveraging on existing European methodologies approved by the Commission and largely used by corporate companies to calculate their environmental performance such as the Product Environmental Footprint (PEF) and the Organisation Environmental Footprint (OEF)[85].

Under sub-Option 4a, significant flexibility would be left to benchmark administrators in designing the formula for the calculation of their methodology and allow room for market players to develop new strategies for addressing environmental concerns. Furthermore, benchmark administrators would incur minor costs in adapting their own established methodologies to the minimum standards provided by the EU legislation.

Sub-option 4b: This Option envisages the introduction of **a maximum harmonisation regime**. The methodology of the two newly introduced categories of benchmarks would be fully harmonised on the basis of a comprehensive set of rules provided at Level 1 and further specified with detailed requirements in Level 2. Those rules would set up

[84] According to Carbone 4 (2015).
[85] Recommendation 179/2013 adopted by the College on 9th April 2013 and published on the OJEU on 4th May 2013.

requirements for the selection and weighting of the underlying assets of the low carbon and positive carbon impact benchmarks.

This approach would allow a high degree of comparability of the (fully harmonised) methodologies of the two new categories of benchmarks. However, benchmark administrators would incur significant costs through compliance to the new requirements set by EU legislation. Furthermore there would be little flexibility available for developing new strategies or methodologies, meaning that this approach could prohibit the market from developing new innovative solutions to environmental issues.

Option 4a and 4b would be achieved by amending the EU Benchmark Regulation through insertion of a new chapter and a new annex introducing the new categories of low-carbon and 'positive carbon impact' benchmarks and the key requirements for their methodologies (respective to the chosen level of harmonisation – minimum standards or maximum harmonisation). The Benchmark Regulation would also, according to the chosen level of harmonisation, include an empowerment for the Commission to further specify the standards for methodologies applied to the two types of benchmarks, in particular in relation to the selection criteria of the underlying assets, the method for the calculation of carbon emissions and carbon savings associated with the underlying assets, as well as the criteria and method for the weighting of assets within a benchmark. In order to define the standards, the Commission would rely on the advice of the technical expert group on sustainable finance set up by the Commission in April 2018.

5.7.2. Pros and Cons

Table 21: Pros and cons of the options on low carbon benchmarks

	Pros	**Cons**
Option 2: Minimum standards for decarbonised indices	• Clear and transparent core elements of methodologies for decarbonised indices. • Better tracking of low carbon investment strategies compared to current decarbonised indices. • Low search costs for investors • Limited greenwashing risk for this specific category of benchmarks.	• Decarbonisation-based strategies would be insufficient to align portfolios with a 2° global warming trajectory. • Insufficient incentives for companies already in the index to decarbonise further. • Lack of consideration for avoided and induced emissions.
Option 3: Harmonised EU rules for 'positive carbon impact' indices	• Carbon-intensive sectors that contribute significantly to the reduction of emissions would be included in the index. • Low search costs for investors with a 2° investment strategy. • Comparability among 'pure play' low carbon indices. • Very limited risk of	• Requires sophisticated methods to screen for companies with a positive carbon impact ratio (CIR), which could be costly when combined with detailed requirements.[86] • Limited impact on investment flows as very narrow investment universe is addressed.[87]

[86] This concerns in particular methods for the calculation of scope 3 emissions. Calibration methods face considerable challenges in identifying the companies with positives CIRs such as picking the "winning technologies" when many of them are still at a R&D stage.

[87] 'Positive carbon impact' indices are not perceived as suitable for building a core equity portfolio for institutional investors as they tend to concentrate investments within few subsectors.

	greenwashing for this specific category of benchmarks.	• The design of positive carbon impact indices reflects a bet on clean energy (future legislation on emissions caps), but is not a suitable a hedge against carbon risk.
Option 4a: Minimum harmonisation of low-carbon and positive carbon impact indices	• This option would make the core elements of methodologies applied to different types of benchmarks (as designed for different target audiences) more transparent and effective. • Institutional investors and asset managers would be able to use appropriate and objective tools to reflect their investment style and approaches as well as to measure the alignment with their low carbon investment preferences. • Would result in lower search costs for investors. • Would reduce greenwashing risks.	• Various data challenges described under option 4b could come into play. However, by specifying only minimum methodological standards, this option would provide the market with more flexibility to address these issues.
Option 4b: Maximum harmonisation of low-carbon and positive carbon impact benchmarks' methodologies	• Fully harmonised methodologies with high transparency and comparability. • Institutional investors and asset managers would be able to use harmonized, appropriate and objective tools to reflect their investment style and approaches; this would help them to measure and disclose the alignment with their low carbon investment preferences. • Would result in lower search costs for investors. • Would reduce greenwashing risks.	• Ensuring full harmonization would require large adjustment costs as sophisticated methods with detailed requirements would be used. • This option would provide little flexibility. Given that the market is still in development, establishing harmonised methodologies with detailed requirements could hinder innovation. • This option is very data driven: the availability of which is often not stable and usually not complete (especially for scope 3 emissions). • A harmonised methodology for comparing carbon emissions of companies operating in different sectors might prove to be highly complex (thus possibly requiring the development of sectorial methodologies to avoid significant costs for companies and index providers).

5.7.3. Impact on stakeholders

In the table below, the following scale is used to assess the magnitude of the impact as

compared with the baseline scenario (the baseline being indicated as 0): ++ strongly positive; + positive; – – strongly negative; – negative; ≈ marginal/neutral; ? uncertain; n.a. not applicable.

Table 22: impact on stakeholders of the options on low carbon benchmarks

Impact	**Benchmark administrators**	**Asset managers and Institutional investors**	**End-investors**
	Option 2 – Mini-mum standards for decarbonised indices		
Positive	(+) Create some market opportunities.	(++) Improve the transparency of the methodology and allow asset managers/investors to better track/assess the performance of their low-carbon funds. (++) Applicable to a relatively broad range of low carbon (active and passive) investment strategies. (+) Objective tool to demonstrate that asset managers/investors are compliant with their clients' low carbon preferences (expressed during the suitability assessment) (+) May harness reputational benefits.	(+) By maintaining a low tracking error vis-à-vis the standard equity benchmark index, the decarbonised version can match or even outperform (only if carbon risk is priced adequately) the benchmark index. (+) Reduction of search costs due to greater transparency/"label" usage. (+) Reduced risk of greenwashing could indirectly impact the quality of ESG information provided by issuers.
Negative	(-) Additional cost of creating indices aligned with the methodology.	(=/-) Although these benchmarks are used by the market for the reasons mentioned above (in particular the broad universe of companies, the good performance and the risk diversification), methodologies of these benchmarks are based on metrics which are not sufficient to help decarbonize portfolios/be aligned with the 2°C trajectory in a meaningful manner.	(-) This index is not suitable for investors who would like to follow a 2°C global warning objective. (-) Lack of transparency, comparability and greenwashing are only partially addressed.
	Option 3: Harmonised EU rules for 'positive carbon impact' indices		
Positive	(+) Create some niche market opportunities.	(+) The transparent and reliable methodology allow asset managers/institutional investors to properly	(++) Reduction of search costs due to greater transparency. (++) New variety of investment opportunities

		track/assess the performance of their 2°C funds. (++) Objective tool to demonstrate that asset managers/institutional investors are compliant with their clients' low carbon preferences (expressed during the suitability assessment). (++) High level of uniformity of the criteria would allow asset managers/investors to compare indices and provide a higher degree of reliability on their methodology (provided that there are enough indices providers that decide to use the label). (+) May harness reputational benefits.	compliant with the 2°C trajectory. (++) Reduced risk of greenwashing could indirectly impact the quality of ESG information provided by issuers.
Negative	(-) Additional cost of creating indices aligned with the methodology.	(--) Applicable to a relatively narrow range of low carbon investment strategies.	(-) Not very suitable for building a core equity portfolio for institutional investors (narrow investment universe). (-) Potentially lower return (at least in the short run) since 'pure play' indices currently tend to underperform standard benchmarks in the short term.
	Option 4a – Minimum harmonisation of low-carbon and positive carbon impact indices		
Positive	(++) Creates better market opportunities – possibility for the development of credible indices whilst allowing for flexibility to adapt current indices.	(++) The transparent and reliable methodologies allow institutional investors and asset managers to properly track/assess the performance of all types of low carbon funds. (++) Applicable to a relatively broad range of low carbon investment strategies. (++) Large choice of objective and appropriate tools to demonstrate that asset managers/institutional	(++) Reduction of search costs due to greater transparency. (++) Reduced risk of greenwashing and indirectly impact the quality of ESG information provided by issuers. (+) Greater variety of investment opportunities compliant with different low-carbon strategies and investment styles.

		investors are compliant with their clients' low carbon preferences (expressed during the suitability assessment/in the investment mandate). (+) Minimum standards for methodologies would provide a higher degree of reliability on the methodologies of low carbon indices, which would help asset managers/investors to compare indices more easily. (+) May harness reputational benefits.	
Negative	(-) Additional cost of creating indices aligned with the methodologies, with cost concerns partially mitigated by providing some flexibility for market players to specify parts of their methodology.	(-) Challenging as regards the available data disclosed by companies.	(-) Not suitable tool for less targeted investment strategies, due to the narrower universe. The negative impact can however be reduced by the potentially larger choice of methodologies for EU low carbon benchmarks.
	Option 4b – Maximum harmonisation of low-carbon and positive carbon impact indices		
Positive	(+) Creates market opportunities to offer a reliable, standardised product that is in demand.	(++) The transparent and reliable methodologies allow institutional investors and asset managers to properly track/assess the performance of all types of low carbon funds (+) Choice of appropriate tools to show asset managers/institutional investors' compliance with their clients' low carbon preferences (expressed during the suitability assessment/in the investment mandate). (++) Full harmonization of methodologies would allow asset managers/investors to compare indices and provide a higher degree of reliability on their methodology.	(++) Reduction of search costs due to greater transparency and comparability. (++) Reduced risk of greenwashing and indirectly impact the quality of ESG information provided by issuers.

		(+) May harness reputational benefits, although the chance of distinguishing product offer from the competition will be lower.	
Negative	(-) High additional cost of re-creating indices aligned with the new methodologies. (-) Little flexibility in selecting and weighting index constituents reduces the scope for gaining a competitive advantage and may harm innovation.	(-) Challenging as regards the available data disclosed by companies with little flexibility for substitution/simplification (e.g. as regards comparing companies from different sectors).	(-) Choice of indices would be limited, as administrators would have limited flexibility in developing innovative methodologies. (-) Not suitable tool for less targeted investment strategies, due to the narrower universe.

Those options will also have indirect impact on the quality of information related to climate factors provided by issuers and reduce the risk of greenwashing. The more the methodologies for low-carbon benchmarks are transparent and harmonised, the more it will incentivize issuers to disclose specific information enabling them to be selected by the low-carbon benchmarks' administrators. However, it will still be up to the issuer to decide whether the benefits of demonstrating that they are low-carbon (and thus potentially being selected as an underlying asset of an EU low-carbon benchmark, which will ultimately enhance the quantity and availability of less expensive capital) outweigh the cost of providing additional data points.

5.7.4. Stakeholders' view

In the course of February – March 2018, DG FISMA conducted a series of interviews with asset managers and index providers. Participants were also invited to fill in a questionnaire on the current availability of low carbon indices that reflect their own low carbon investment strategies. The table below summarises the views of stakeholders.

Table 23*: Stakeholder's views on low carbon benchmarks*

Stakeholders	Harmonisation of the methodology	Barriers to the use of low carbon indices	Key elements of the methodology
Overall	The majority of the respondents to the questionnaire argued for a harmonisation of the methodology at European level.	None of the respondents to the questionnaire currently use a low carbon index but most of them would make use of them if reliable ones were available on the market. The following main reasons were mentioned for the failure to use low carbon indices: (i) current	Respondents mentioned the following issues regarding a methodology for low-carbon benchmarks: - incomplete assessment of scope 3 emissions; - absence of forward-looking data; - potential double counting of CO2 emissions. Most respondents observed that a low

		methodologies do not reflect all sources of CO_2 emissions; (ii) clients (investors) have no confidence in the methodology employed by available low carbon indices; and (iii) lack of low carbon indices reflecting their investments approach and style.	carbon index should be built upon a sound and harmonised methodology which reflects all relevant sources of CO_2 emissions.

See Annex 2 Section 13 for a more detailed overview of stakeholders' views.

5.7.5. Comparison of the policy options

This section assesses the policy options in terms of their (i) effectiveness in addressing the three specific objectives set out in section 3, (ii) their efficiency, and (iii) their coherence. Lastly, this section calculates a score for each of the three policy options, adding up the results from the assessment of the impact on the various stakeholders in section 5.6.3.

Table 24 below summarises the extent to which the options on the creation of low-carbon indices are effective, efficient and coherent. Effectiveness is mapped against the specific objectives set out in section 4. The respective scores are attributed on the basis of the analysis of pros and cons above.

Table 24: Benchmarking the options on low-carbon benchmarks

	Effectiveness			**Efficiency**	**Coherence**	**Score**
	Objective 1	Objective 2	Objective 3			
Option 1	0	0	0	0	0	0
Option 2	≈/+	≈	≈/+	≈/-	≈	0.5
Option 3	≈	≈	+	--	+	0
Option 4a	≈/+	+	+	≈/-	+	3
Option 4b	≈/+	+	+/++	--	+	2

Note: Magnitude of impact as compared with the baseline scenario (the baseline is indicated as 0): ++ strongly positive (score 2); +/++ very positive (score 1.5); + positive (score 1); +/ ≈ marginal positive (score 0.5); – – strongly negative (score –2); –/– – very negative (score –1.5); – negative (score –1); ≈/– marginal negative (score – 0.5); ≈ neutral.

Effectiveness: By introducing relevant methodological standards for low carbon benchmarks in Europe, Options 2, 3 and 4 will provide investors and asset managers who want to develop a low-carbon strategy with relevant tools to compare/track the performance of their portfolios/funds.

Option 2 would create standards for the methodology of "decarbonised" indices, which would be easier for benchmark administrators to adopt but will not allow to fully reach the objectives. However, this harmonised methodology would only apply to a segment of low carbon indices that do not aim to align with the objective of limiting global warming to 2^{o}C, and hence would only partially contribute to providing clarity at EU level on what are sustainable economic activities.

Option 3, would introduce a methodology, which would address the alignment with 2^{o}C

investment strategy and enable the potential inclusion of highly carbon intensive sectors provided that they contribute significantly to the reduction of emissions in assets tied to low carbon indices. However, this Option would be applicable to a relatively narrow range of low carbon investment strategies and hence may not deliver the benefit of greater clarity concerning low carbon investment strategies to many end investors.

Option 4a and Option 4b would apply to both decarbonised indices and positive carbon impact indices. Hence they would address the third objective of providing greater clarity over low-carbon investment strategies, while offering relevant investment entities the choice between the two types of benchmarks. While all options would involve disclosure by benchmark administrators, Options 4a and 4b would address a larger part of the low carbon investment universe, and indirectly contribute to improved quality of information provided by asset/investment managers to end-investors with regards to climate risks and opportunities.[88] Options 2, 4a and 4b may also help relevant investment entities with achieving a more coherent approach regarding the integration of ESG factors (cf. objective 1) by facilitating a more systematic assessment of climate risks.

Efficiency: From a cost-efficiency perspective, all options would mean that relevant entities would incur some costs. Options 3 and 4b in particular would be the most costly due to their high prescriptiveness and little flexibility for market participants. This would entail high compliance costs for the relevant entities that would outweigh the benefits in terms of transparency. Under Options 3 and 4b, the Commission would also incur relatively higher costs for the development of more granular methodologies. Indeed such development would require more detailed specification of the methodologies and tools, which would imply the preparation of more detailed guidelines for market participants. In contrast, Options 2 and 4a would cater more for market-led innovation and provide greater choice to market participants in terms of setting a different degree of ambition with respect to meeting climate related objectives (e.g. alignment to 2, 3 or 4°C scenario) and these options are therefore more efficient.

Coherence: All options broadly follow the policy recommendations regarding benchmarks, as set out by the High Level Expert Group on Sustainable Finance (HLEG, 2018), the Commission's Sustainable Finance Action Plan, as well as other EU sustainability objectives (i.e. SDGs). However, option 2 is not aligned with the achievement of EU sustainability goals. Option 3 would be more closely linked with EU sustainability goals by aiming to provide a benchmark aligned with a 2°C objective, whilst option 2 would only support a 4-6°C objective. Options 4a and 4b offer tools to align indices with the 2°C trajectory. Between the two sub-options, option 4a achieves this while providing enough flexibility to benchmark administrators to achieve compliance with limited costs.

Table 25 below summarises the overall scores for the policy options considered and highlights how they compare in terms of stakeholder support and overall level of regulatory ambition. As can be seen, Option 3 has received minimal support through the targeted consultations, as it would be relevant only for niche index providers that are already aligned with a 2°C strategy. The majority of index providers as well as asset managers are accustomed to the use of simple, mainstream indexes. They would thus have a preference for option 2, which would have the smallest disruptive impact on their businesses, whilst allowing them to use a commonly recognised tool. Option 4 is a

[88] This is in line with option 3b on disclosure.

mixture between the other two options, and it would cater for all stakeholders and also further the EUs sustainability goals. The sub-option 4a would provide for a greater flexibility and would therefore find the consensus of most stakeholders (as compared to the more prescriptive option 4b).

Table 25: Summary of pros/cons of the options on low-carbon benchmarks

Option	Effectiveness/efficiency/coherence (score)	Stakeholders support	Level of ambition/challenge
2	0.5	Medium	Medium
3	0	Low	Medium/High
4a	3	Medium/High	Medium/High
4b	2	Medium	High

Overall, Option 4a was identified as the preferred option given that it provides the most balanced approach in view of the analysis of the comparison of options in terms of effectiveness, efficiency and coherence (see Table 24). This option, jointly with option 4b, scores high on effectiveness and coherence. However, option 4a achieves this while providing greater flexibility to the market participants and while aiming to limit costs and thus achieving greater efficiency in comparison to option 4b.

The option is considered to be proportionate given that it will reach the objectives, whilst also allowing benchmark administrators a certain level of flexibility as regards the development of methodologies which go beyond the minimum requirements. This would allow room for market players to develop innovative strategies for addressing environmental concerns. Furthermore, the costs incurred by benchmark administrators in adapting their own established methodologies to the minimum standards provided by the EU legislation can be considered proportionate to reaching these objectives. The choice of a Regulation as legal instrument is the most appropriate to harmonise, given the cross-border nature of most benchmarks: the direct applicability of a Regulation would restrict the possibility of divergent measures being taken by competent authorities at national level, and will ensure a consistent approach and greater legal certainty throughout the EU.

VI. PREFERRED OPTIONS AND OVERALL IMPACT

This section first summarises (i) the description of the preferred options for each initiative covered by this impact assessment, (ii) the scope of each initiative in terms of financial entities covered, financial products, economic sectors and sustainability issues covered, (iii) the sequencing of the measures envisaged (*Section 6.1*). It then describes the existing links among the four different initiatives (*Section 6.2*). Lastly, it provides an assessment of the expected economic, social and environmental impacts of the preferred option for each of the four initiatives (*Sections 6.3 to 6.5*).

6.1. Description of the preferred options for each of the four initiatives

The table below recalls the preferred option for each problem driver.

Table 26: Summary of the preferred options

Problem drivers	Preferred option
Lack of clarity and coherence regarding the consideration of ESG factors in the investment and advisory process as part of the duties towards investors/beneficiaries (*Driver 1*).	Option 3 - Harmonised EU framework providing principles and criteria on how to shape the internal procedures and processes of the relevant entities to integrate ESG factors in compliance with investors' preferences.
Lack of ESG disclosure requirements for institutional investors, asset managers and investment advisors (*Driver 2*).	Option 3b - Harmonised EU framework introducing mandatory disclosure both at the level of the entity and of the product: (i) on ESG risks integration and (ii) for asset managers and institutional investors that market their products/services as pursuing sustainability investment objectives, on how these objectives are achieved.
Lack of clarity on what are sustainable investments/assets (*Driver 3*).	Option 3 - Laying down a framework for creating an EU environmental taxonomy on what can be considered an environmentally sustainable economic activity, for the purposes of establishing the environmental sustainability of an investment with high degree of granularity.
	Option 4a – Minimum harmonisation of low-carbon and positive carbon impact benchmarks.

6.1.1. Duties toward investors/beneficiaries with regards to ESG factors

(i) Description

This initiative requires integrating ESG factors in the investment and advisory process of relevant financial entities as part of their duties towards investors/beneficiaries. More specifically, for asset managers and institutional investors, this option would detail how and where material ESG risks are to be integrated within the procedures in the areas of investment strategy, risk management, asset allocation and governance taking into account the size, nature, scale and complexity of the activities of the entity. In addition, for investment advisors, individual portfolio managers and insurance distributors, this option would detail how and where ESG factors are to be integrated within the procedures in the areas of the suitability assessment and the product selection.

(ii) Scope

This measure covers all **financial entities** that receive a mandate from their clients and beneficiaries to take investment decisions on their behalf or to receive recommendations

and have therefore the duty, under the current legislative framework, to take these decisions according to the best interests and to the expectations of their clients and beneficiaries. The following entities are therefore covered by this action: collective investment managers (regulated by UCITS, AIFMD, EuVECA, EuSEF), insurance undertakings and insurance distributors (Solvency II, IDD), occupational pension funds (IORP II), investment advisors and individual portfolio managers (MiFID II). As regards pensions funds and insurance companies, the legislative proposal covers: (i) all pension funds offered to EU retail investors (occupational pension funds and individual and personal pension products); and (ii) all life insurance products with investment complements - so called insurance based investment products (IBIPs) - offered to both retail and professional investors.

In terms of **financial products/services** impacted, the requirement for the relevant entities to integrate ESG factors in their investment decision and advisory process would apply to all financial products offered and to the relevant services (individual portfolio management and advice) provided by the financial entities covered by this measure - whether or not they pursue sustainability investment objectives. This means that **all economic sectors** could be impacted. While the universe of investments potentially affected by this initiative is therefore very large, its impact is likely to vary across entities and products/services depending on different characteristics such as the entity's business model (e.g. the type of products offered or services provided) and the product's features (e.g. short-term horizon vs long-term horizon). Indeed, for some investments, ESG factors will not be material enough to be integrated in the investment decision-making process.

(iii) Sequencing

First, a proposal will be adopted in late May 2018 amending IORP II to provide the Commission with an empowerment to adopt delegated acts ensuring that occupational pension funds would be required to integrate ESG factors in their investment decision process.

Shortly thereafter, the Commission will launch a joint call for advice to the European Supervisory Authorities with the objective of adopting Delegated Acts requiring other financial institutions mentioned above to integrate ESG factors in their investment decision and advisory process.

By mid-2018, the Commission will amend the delegated acts for IDD and MiFID in order to include ESG preferences in the investment advice and portfolio management service.

6.1.2. Disclosure on ESG integration and sustainability products

(i) Description

The preferred option on disclosure is composed of two mandatory requirements:

- ✓ First, it requires all the entities covered by the previous initiative on investors' duties to be transparent towards their clients on (i) the procedures and processes they have in place to take into account ESG factors in their investment and advisory process and (ii) on the extent to which these risks are expected to have an impact on the returns of the product/service offered/provided, irrespective of

whether or not sustainable investment objectives are pursued.

- ✓ The second mandatory requirement concerns a subset of financial products/services. Asset managers and institutional investors - when they market their products/services as targeting sustainable investments - would have to disclose how they adhere to these targets with their investment decisions, in particular by providing information on methodologies used to assess, evaluate and monitor the adherence and the contribution of the investment decisions to their sustainability objectives.[89] Information would also have to be provided on whether an index has been designated as a reference benchmark and the appropriateness of the index for the sustainable investment objective pursued. For financial products that pursue a low carbon emission objective, where no index has been designated as reference benchmark or where asset managers and institutional investors choose to significantly deviate from this benchmark, additional information would have to be provided to explain in detail how they intend to ensure continued adherence to the low carbon emission objective. The current disclosure requirements set out by EU legislations with regard to these products do not provide all the necessary information to properly inform end-investors about the sustainability-related impact of their investments. Therefore, it is appropriate to set out more specific disclosure requirements. This will limit greenwashing of financial products and provide end-investors with the information necessary to identify investment opportunities that reflect their sustainability preferences. To meet the disclosure requirements, financial market participants are required to use information that issuers are already obliged to provide in accordance with the Accounting Directive (Directive 2013/34/EU). This aims at reducing the indirect cost for issuers (including smaller issuers).

These two disclosure requirements are mandatory in regular reports (for instance, annual reports), websites and pre-contractual and contractual information (for instance, prospectus).

(ii) Scope

The first requirement to disclose information on the integration of ESG risks would apply to the same financial entities as those covered by the initiative on duties towards investors/beneficiaries: asset managers (regulated by UCITS, AIFMD, EuVECA, EuSEF), insurance undertakings and insurance distributors (Solvency II, IDD), occupational and other pension providers, investment firms providing investment advice and individual portfolio managers (MiFID II). In terms of financial products/services impacted, the requirement to disclose how ESG factors are taken into account and which impact ESG risks are expected to have on the value of the portfolio would apply to all financial products offered by these entities, individual portfolio management and investment advisory services, irrespective of whether or not they pursue sustainable investment objectives. Therefore, all economic sectors would be impacted.

The second mandatory disclosure applies to the following financial entities: managers of UCITS, AIFs, EuVECA and EuSEF, individual portfolio managers, insurance

[89] Including data sources, screening criteria, metrics and the indicators used measure the contribution to sustainability objectives

undertakings (offering insurance based-investment products), IORPs and other pension providers. But it applies only to **financial products/services** that pursue sustainable investments.

Sequencing

Both requirements would apply at the date foreseen by the proposed regulation, when adopted – a date which would be deferred in order to provide financial market participants with sufficient time to comply with those requirements.

As regards the second mandatory requirement, the Commission would adopt Level 2 measures further specifying the details of the presentation and content of information on sustainability investment objectives to be disclosed.

6.1.3. Taxonomy

(i) Description

The preferred option would lay down the conditions to subsequently create an EU environmental taxonomy on what can be considered an environmentally sustainable economic activity, for the purposes of establishing the environmental sustainability of an investment. The proposed taxonomy would, at first, be strictly environmental as it would only include six environmental objectives. However, a review clause three years after entry into force would foresee the possibility of extending the taxonomy to also cover social objectives.

(ii) Scope

The proposed EU taxonomy would apply to (i) Member States when setting out requirements for financial market participants with regard to the labelling of financial products pursuing environmentally sustainable objectives, and to (ii) financial market participants offering financial products as environmentally sustainable, as they shall disclose how and to what extent the criteria for environmentally sustainable economic activities are used to determine the environmental sustainability of the investments selected for the financial product

The taxonomy would however have no immediate impact as the application is deferred until 6 months after the entry in applicability of the first delegated act (foreseen in 2020 on the first two environmental objectives namely climate change mitigation and adaptation).

All relevant **financial entities** that are providing green financial products, could (overtime) be incentivized to use the proposed taxonomy.

As regards **economic sectors**, the economic activities which are identified as significantly contributing to at least of the six environmental objectives (or thereafter possibly social objectives) would be impacted.

As regards **firms,** they may be incentives voluntarily to provide information to what extent their activities would fall under the proposed taxonomy.

Overall, compared to the first two initiatives on investors' duties and disclosures, the scope of the proposed taxonomy is narrower.

(iii) Sequencing

The **environmental taxonomy** would be established in two stages.

First, a **regulation** would identify: (i) the six environmental objectives to which economic activities should substantially contribute to be covered by the taxonomy; (ii) the high level principles for determining (at level 2) the technical screening criteria for identifying environmentally sustainable economic activities; and (iii) the minimum safeguards with which economic activities would have to comply to be eligible. In addition, it would empower the Commission, under additional requirements, to establish the technical screening criteria for determining a) whether an economy activity substantially contributes to one or more environmental objectives, and b) whether it significantly harms one or more environmental objectives.

Then, the Commission would establish through **delegated acts**, subject to their own impact assessments, the technical screening criteria for specific activities, on the basis of the advice from the technical expert group established for that purpose, while managing any risks in the development of the taxonomy. These technical criteria would notably (i) determine under which conditions a specific economic activity is substantially contributing to one – or several – of the six environmental objectives, and (ii) specify the minimum requirements with which economic activities would have to comply to avoid significant harm to any of the other environmental objectives. It is foreseen that the first delegated act covering economic activities contributing to the climate change adaptation and mitigation objectives would be adopted by year-end 2019. The objective would be to adopt the second and third delegated acts by year-end 2021 and year-end 2023 respectively. The EU environmental taxonomy would then be completed. (*see section 5.6.2 for more details*)

Subject to the outcome of the review of the regulation, which would happen at the earliest three years after entry into force, the **scope of the taxonomy could also be expanded to also cover social objectives.** Then a fourth delegated act with the technical screening criteria for identifying economic activities contributing to these social objectives could be adopted by year-end 2026.

6.1.4. Low carbon and positive carbon impact benchmarks

(i) Description

The preferred option will introduce EU minimum standards for methodologies to develop **'low carbon' and 'positive carbon impact' benchmarks**. This will foster generally accepted market standards to measure a company's carbon footprint and, in consequence, an investment portfolio's carbon footprint. Doing so, it will provide investors who want to invest in low carbon strategies with a reliable tool.

(ii) Scope

The **financial entities** impacted by the initiative will be (i) the low carbon benchmark administrators which will have to adapt their methodologies to the minimum standards defined by the amended Benchmark Regulation EU, and indirectly (through disclosure requirements) (ii) asset managers using low carbon benchmarks. The **financial products** impacted will be those claiming to follow low carbon investment strategies. The **economic sectors** impacted would be those which, because they contribute to lowering greenhouse gas emissions, could be components of low carbon benchmarks.

(iii) Sequencing

There will be **two steps**. First, the **Benchmark Regulation** will be amended to (i) create the new categories of low carbon benchmarks' and 'positive carbon impact benchmarks' providing for key requirements for harmonising their methodologies, and (ii) to empower the Commission to adopt a delegated act further specifying the minimum standards for these new categories of benchmarks.

In the second step, the Commission will, on the basis of the advice provided by the expert group set up for that purpose (which will also provide advice for delegated acts on taxonomy), adopt a **delegated act** to provide further key minimum standards necessary to define, for low carbon and positive carbon benchmarks: (i) the criteria for the choice of the eligible underlying assets, including, where applicable, the exclusion criteria for assets; (ii) the criteria and method for weighting of assets in a benchmark; and (iii) the method for the calculation of carbon emissions and carbon savings associated with the underlying assets.

6.2. Links between the four initiatives and scope of requirements on asset managers depending on their investment style

While each of the initiatives is self-standing and is meant to tackle different problem drivers (or their combination), they interact in various ways, while contributing jointly to meeting the wider objectives as set out in the Commission's Action Plan.

The following examples can illustrate some of the most prominent links and interactions of the four initiatives:

- ✓ **The initiatives on investors' duties and disclosure are linked**, in the sense that investors' duties would make it mandatory for asset managers and institutional investors to integrate ESG factors in their investment decision process, and disclosure requirements would make it mandatory to disclose how this is done.

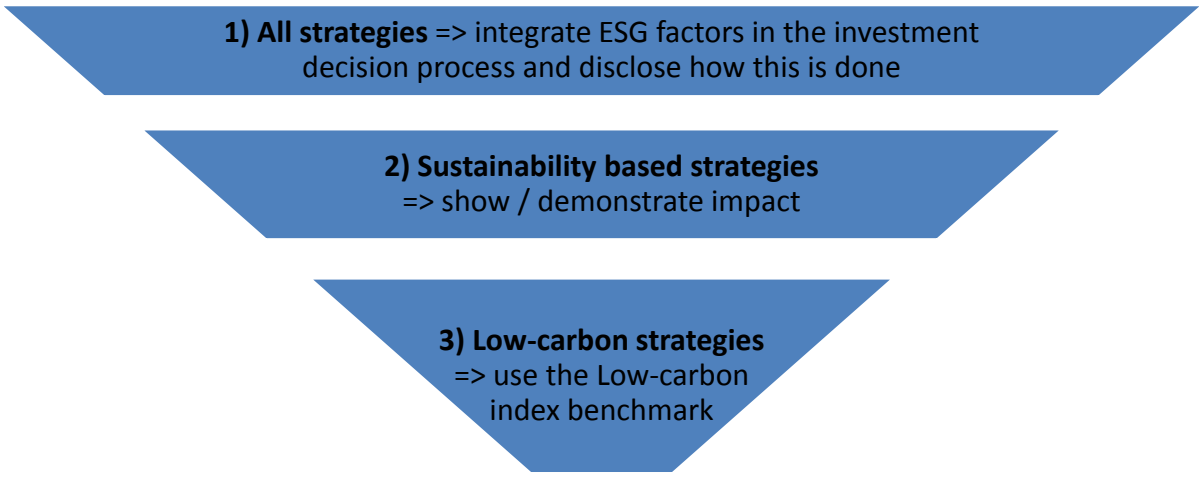
- ✓ **The initiatives on investors' duties, benchmarks and disclosure are linked**: where asset managers market themselves as pursuing a low-carbon emission objective, they would be required to designate an appropriate benchmark, such as the EU low-carbon index or the positive carbon impact index as a reference benchmark. Where no index reflecting the asset managers' low-carbon strategy is available on the market, the asset managers would need to provide a detailed explanation of how they intend to ensure continued adherence to the low-carbon emission objective.

- ✓ **The initiatives on taxonomy and disclosures are linked,** in the sense that financial market participants offering financial products/services as environmentally sustainable, shall disclose (once developed) how and to what extent the criteria developed in the taxonomy to define environmentally sustainable economic activities are used to determine the environmental sustainability of the investments selected for the financial product.

All initiatives announced in the Commission Action Plan on sustainable finance adopted in March would have an impact on various stakeholders throughout the different stages of the investment value chain, as illustrated by Figure 2 in Section 1.3.

When it comes to asset managers and institutional investors, they would be subject to different requirements depending on their investment style. The investment style can range from very general to very specific approaches, as demonstrated in Figure 6:

Figure 6: the scope of requirements on asset managers depending on their investment style



1) As part of their investors' duties, **all** asset managers and institutional investors would have to integrate ESG factors in their investment decision making process and disclose how this is done (i.e. how they comply with the investors' duties requirements). These requirements are crucial in particular where investors express their preference to consider ESG factors in their investments.[90]
2) Where the asset manager markets a product/service claiming that such product/service targets **sustainable investments**, this asset manager would have to disclose information demonstrating that the sustainability impact of the product/service in question is indeed consistent with its sustainability objectives (e.g. through indicators relevant for the chosen sustainability objective together with the related calculation methodology used to assess, evaluate and monitor the adherence and the contribution of the investment decisions to the sustainability objectives).[91]
3) Where the asset manager markets a product/service claiming that such product/service pursues a **low carbon emission objective**, this asset manager would have to designate an appropriate benchmark, such as the EU low-carbon index or the positive carbon impact index as a reference benchmark.

[90] Under Action 4 of the Action Plan: Incorporating sustainability when providing financial advice, investment firms and insurance distributors would be required to ask their clients' preferences (such as ESG factors) and take them into account when assessing the range of financial instruments and insurance products to be recommended, i.e. in the product selection process and suitability assessment. This action will be done by amending the MifID II and Insurance Distribution Directive delegated acts.
[91] In our hypothetical case where the investor expresses a specific preference for products that would contribute to meeting climate change objectives, such information could for instance include the following: (i) the envisaged exposure on the portfolio of climate change-related risks (target footprint), (ii) the exposure of the overall portfolio consistent with its climate change-related objectives (their portfolio carbon footprint) and (iii) the related calculation methodology.

Where no index reflecting the asset manager's low-carbon strategy is available on the market, the asset manager in question would have to publish on their website an explanation of how they intend to ensure continued adherence to the low carbon emission objective.

6.3. Economic impact

This section first describes the expected overall economic impact of the four initiatives, then presenting in more details the expected impact of each of them.

6.3.1. Overall economic impact of the four initiatives

By increasing the overall transparency, the different initiatives will **reduce the asymmetry of information** between end-investors, financial intermediaries and index provider. First of all, end-investors will have more information on how those intermediaries integrate ESG factors in their investment decision-making process and whether an appropriate benchmark is used. Second, intermediaries will be better informed about the ESG preferences of their clients and will know which activities can be considered as environmentally sustainable. Indirectly, this will incentivise issuers to disclose more ESG information and provide information on their environmentally sustainable activities. Lastly, financial intermediaries will have more information on the methodology used by index providers and thus will be able to select more appropriate benchmarks.

This enhanced transparency from the whole investment value chain will **increase the reliability and attractiveness of ESG financial products** and foster innovation in investment strategies and the design of these financial products.

The proposed initiatives would also **reduce the current market fragmentation** in terms of methodologies for identifying environmentally sustainable activities/investments and developing low carbon benchmarks, as currently no common approach exist on the market.

By fostering the development of more ESG products, the initiative would increase competition between financial intermediaries and therefore reinforce the efficiency of the market of ESG products. It would incentivise financial entities to be more innovative and to adopt higher ESG standards. This would ultimately **increase the competitiveness** of the European sustainable finance market. The combination of a more competitive and efficient market of ESG products and the growing demand from end-investors for such products, helped by the reduction in search costs, should ultimately result in the **growth of this market**.

By explicitly requiring financial intermediaries to integrate ESG factors in their investment decision process, it would contribute to the Commission objective to **mainstream sustainability into risk management.**

By providing more clarity on the market on which activities can be considered as environmentally sustainable, fostering the sustainable investment market and mainstreaming sustainability into risk management, the Commission initiative is expected to contribute to the reorientation of capital flows towards sustainable

investments and hence to the objective **foster a sustainable economy**. The magnitude of the reoriented capital flows will depend on (i) the actual interest for sustainable products among investors operating in this more favourable environment, and (ii) on the implementation of several elements of the various initiatives, which will be impact-assessed at a later stage.

6.3.2. Economic impact of preferred options on integration of ESG factors and disclosure

A clear and coherent approach on **integration of ESG factors** would have the following economic impacts: (i) ESG risks would be more systematically taken into account in financial modelling, leading to an optimal risk-return trade-off at least in the long-term and fostering market efficiency; (ii) it would encourage innovation in investment strategies due to the consideration of a wider range of factors, both financial and non-financial, creating the conditions to attract new investors; (iii) by providing (retail) investors with an opportunity to clearly express their non-financial investment objectives during the advisory process, it would increase the aggregate demand for ESG financial products and services; and (iv) it could increase competition, incentivising entities to adopt high ESG standards.

In terms of **costs**, feedback from stakeholders indicates that these are part of the overall internal/organisational costs related to the risk management and monitoring of certain exposures. In fact, the additional tasks imposed on relevant entities covered by this initiative would be incorporated within the existing organisational and operating procedures without creating any new area of obligations. Duties towards investors/beneficiaries mean that relevant entities have to take investment decisions in the best interest of their investors or beneficiaries, and in accordance with the mandate received from them. In order to comply with these duties, relevant entities have already in place processes and procedures to identify, assess, manage and monitor all risks that are deemed to be material for the value of assets underlying the service/product they offer.

The foreseen Level 2 measures do not add a completely new requirement and are proportionate. For entities already integrating ESG factors in their investment decision-making process, there would be no additional costs. For entities that do not currently already integrate ESG factors, the additional tasks would imply some compliance costs. However these tasks would be carried out in a proportionate manner according to the features of the existing organisational and operating conditions. Those costs are part of the overall internal/organisational costs related to the risk management and monitoring of certain exposures. In fact, the tasks foreseen for financial entities covered by this initiative would be incorporated within the existing organisational and operating.. More precisely, as indicated by stakeholders, there is no need to hire new staff. It is more a question of investing more systematically in ESG expertise (e.g. at employee and board level), data and tools. This could involve —depending on the current level of ESG integration — buying ESG data from third-party vendors, more systematic integration in the investment decision process and risk assessment, and possibly further task specialisation and more active engagement with companies on topics related to ESG. The cost of ESG integration. for the small entities ranges from EUR 80 000 to EUR 200 000 per year (for buying external data, doing additional internal research, engagement with

companies etc.), i.e maximum 0.0001 % of AuM (by way of comparison, the total cost for an equity fund is around 2% per year[92]). The highest relative additional cost for medium-size entities is around 0.0003 % of AuM per year (for a player with EUR 72 billion of AuM).

Mandatory **disclosures** on ESG would ensure that all relevant entities do it in a comparable way. This, together with requiring disclosure both at entity and financial product or service level will increase the granularity of available information to end-investors. While higher granularity may increase the amount of available information, comparability would be increased and the **cost** of processing this information would be kept within acceptable limits, if provided in a standardised way. Transparency will increase as the information will be effective in reaching the market, and better serve the general objective of reducing search costs for end-investors. Some stakeholders indicated that the most significant costs would come from reviewing the pre-contractual and contractual documents (e.g. about EUR 40 000 per prospectus). However, these costs are expected to be limited if a transitional period is foreseen as suggested under the preferred option. Moreover, if the prospectus has to be periodically revised in any event, as explained by stakeholders, the cost of adding ESG related information should be a fraction of it. Asset managers and institutional investors offering products and providing services pursuing a sustainability investment objective will also incur the costs linked to the disclosure of the contribution/impact of the fund/portfolio to this sustainability objective pursued. However, no specific methodology is imposed. Therefore, the relevant entities offering financial products pursuing sustainability objectives, can rely on the methodology in place to calculate the sustainability-related impacts that the policy option requires to disclose. As a consequence, compliance costs are not expected be significantly high. Moreover, there are reputational benefits for relevant entities from disclosure, as well as reduced costs for end-investors to find financial products and take investment decisions that correspond to their sustainability preferences.

6.3.3. Economic impact of preferred option on taxonomy

An EU taxonomy is an important step towards providing clarity on what constitutes a sustainable economic activity. The impacts on stakeholders depend on its final uses and on the details of such taxonomy, which will be developed subsequently by the adoption of delegated acts. As explained also in section 5.6.2, a proper assessment of the impacts will take place before adoption of those delegated acts. In particular, the impact of technical screening criteria will have to be assessed in terms of impacts on existing green financial products and on competition within and between industries. In fact, the technical screening criteria should ensure that all relevant economic activities within a specific sector can qualify and are treated equally if they contribute equally towards one or more of the six environmental objectives. It is recognised that the potential capacity to contribute towards these environmental objectives varies across sectors, which should be reflected in the criteria. However, within each sector, such criteria should not unfairly disadvantage certain economic activities over others if the former contribute towards the environmental objectives to the same extent as the latter. When establishing technical

[92] Ibid 46

screening criteria, the Commission should assess whether adoption of these criteria for sustainable activities would give rise to stranded assets or deliver inconsistent incentives, and whether it would have any negative impact on liquidity in financial markets.

In any event, a uniform classification at EU level would already help to determine which activities can be regarded as sustainable and send appropriate signals to economic actors, as it would "translate" EU policy objectives into tangible guidance to identify the relevant projects or investments. It could therefore help orient more capital flows towards sustainable investments.

6.3.4. Economic impact of preferred option on low-carbon indices

EU minimum standards for methodologies to develop low-carbon and positive carbon impact indices and better disclosure would have the following impacts: (i) it would reduce the asymmetry of information between investors and index providers, giving asset managers and portfolio managers all the necessary information to select a low carbon index which reflects their investment style; (ii) it would reduce market fragmentation as the methodologies for developing low carbon indices would be harmonised according to minimum standards; and (iii) it would indirectly impact the quality and comparability of climate-related information disclosed by corporate companies who want to be part of the index.

The preferred policy option would thus help reach the policy objectives set out in section 4, whilst also creating better market conditions for the relevant stakeholders. It would establish a common basis for low-carbon methodology that would increase credibility and uptake by market participants, whilst also leaving sufficient space and incentives for private companies to innovate and come forward with new solutions. By developing common minimum standards for which products can claim to follow a "low carbon" or "2 degree" investment strategy it would also help reduce greenwashing risks, thus ensuring a more effective allocation of funds towards sustainable assets and lower search costs for stakeholders.

6.3.5. Competitiveness and impact on third countries

This initiative is related to the EU commitments to choose a more sustainable path for our planet and our economy stemming from the 2016 Paris agreement on climate change and the United Nations (UN) 2030 Agenda for Sustainable Development (UN, 2015). Other initiatives currently ongoing at international level include, for instance, the Chinese Green Bond.

Third countries entities and persons making available financial products or services covered by this initiative within the territory of the Union are subject to the sectorial rules laying down the conditions under which they may carry out their activities within the Union.

6.3.6. Impact on issuers

The preferred options will indirectly impact issuers by incentivizing them to disclose the additional ESG information necessary for financial intermediaries. Nevertheless, under the requirements of the Accounting Directive (2013/34/EU), undertakings are largely

required to provide in management reports non-financial information necessary for an understanding of the undertaking's development, performance or position.[93] In addition, as of 2018, large listed companies as well as non-listed banks and insurance companies are required to disclose such information in non-financial statements. This will provide additional valuable information to asset managers and institutional investors on the issuers business model, policies, principal risks and key performance indicators. For the purpose of the disclosure requirements on products/services targeting sustainable investments, financial market participants would have to use information that issuers are already required to provide in accordance with the Accounting Directive (Directive 2013/34/EU). This aims at reducing the indirect cost on issuers (including smaller issuers).

For issuers not covered by the reporting requirements of the Accounting Directive, the incentive to disclose additional information will come with a cost. The Commission has estimated the additional cost to disclose a non-financial statement between EUR 600 and EUR 4 300 per issuer[94].Nevertheless, such disclosure will also enable those issuers to access additional investors and potentially reduce the cost of capital. It will be up to the issuer to decide whether the benefits of producing such information (in terms of, for example, attracting new and cheaper capital) outweigh the cost of providing additional information.

6.4. Environmental impact

6.4.1. Overall environmental impact of the four initiatives

Taken together, the four initiatives, by mainstreaming sustainability in investment decision-making processes and supporting the development of a larger, more efficient and more competitive market of ESG products, are expected to facilitate investments in (more) sustainable projects and assets. The additional investments resulting from increased transparency and market harmonisation would support the far-reaching sustainable transformation envisaged by the environmental policies already in place at EU and Member State levels. Investments in green sectors (e.g. renewable energy, energy efficiency, waste management, environmental restoration) would thus translate into immediate and longer term environmental benefits such as reduced pollution levels (e.g. to air, water and soil) with related health benefits, reduced greenhouse gas emissions mitigating dangerous climate change and the preservation and enhancement of natural capital and eco-system services.

6.4.2. Impact of preferred options on integration of ESG factors and disclosure

In 2015, European households held EUR 34 trillion of financial assets, representing 40% of the total financial assets. About 25% of these assets were invested in equity and funds, another 40% in insurance and pensions, and the difference in deposits (2Dii 2017). Mobilising some of these assets would be a major contribution to financing a transition to a more sustainable economy. Greater clarity on ESG integration and increased transparency will raise ESG awareness among all stakeholders, possibly unlocking capital flows towards environmental investments. The preferred option on disclosure will notably contribute to achieving the EU environmental objectives by requiring disclosure

[93] See section 5.1. What is the baseline from which options are assessed?
[94] Impact assessment of Directive 2014/95/EU.

on the impact of investments on climate and other environmental issues. In addition, financial market participants offering financial products or providing services targeting environmentally sustainable investments, will be required to disclose how and to what extent the criteria (once developed) to define environmentally sustainable economic activities are used to determine the environmental sustainability of the investments selected for the financial product. This will provide end-investors with the adequate information to identify investments that are aligned with their preferences as regards the environment, by increasing transparency on what is the environmental impact of products and services targeting environmental investments. This will reduce the risk that relevant financial entities claim their products to be more environmental-friendly than they are in reality and contribute to enhance investors' confidence regarding "green" claims.

6.4.3. Impact of preferred option on taxonomy

The first impact of the taxonomy is that it will clarify what is green, which should directly benefit investors and financial market participants. It is then expected to have a series of positive secondary/indirect impacts, depending on the uses made of the taxonomy (see Box 7 in section 5.6.2.), including a positive environmental impact. By providing clarity on what is 'green', an EU taxonomy would facilitate investments in sustainable projects and assets across the EU. This would contribute to the achievement of the EU environmental goals e.g. lowering greenhouse gas emissions in line with the Paris Agreement, and moving to a resource-efficient and circular economy.

The use of the EU taxonomy for (financial) product standards and labels would improve environmental integrity of green investments within as well as outside the EU (as the taxonomy would also apply to EU investors investing globally). As such, it would help to minimise the risk of greenwashing and avoid the negative environmental impacts from investing in assets that are not in line with the EU sustainability goals.

Box 8: EU labelling for environmental policy

There are a number of labels at EU-level, for the purposes of supporting environmental policy goals. These labels currently focus on the environmental impacts of goods and services, but do not yet include financial services.

Products can have a negative impact on the environment depending on how they are made, used and disposed of. In the area of energy, some market failures and imperfections[95] leading to this negative impact have been addressed by the Energy Efficiency Labelling Directive.[96] Its aim is to encourage consumers to buy more energy-efficient products by informing them about the energy use of products through a mandatory harmonised EU energy label provided by manufacturers and displayed by dealers. In doing so, the label contributes to 'pulling' consumer preferences towards the best-in-class products.[97]

Existing EU product labels have helped consumers to make informed choices,[98] encouraged them to buy more energy efficient models; incentivised manufacturers to produce ever more energy efficient products; and overall, they have contributed to increased market share of more energy efficient, cleaner and more environmentally friendly products. Due to the positive impact on demand and supply sides, most energy labelled products are now in the top classes; A (including

[95] See SWD(2015) 139 final, p. 10.
[96] Directive 2010/30/EU, repealed by Regulation 2017/1369 setting a framework for energy labelling
[97] SWD(2015) 139 final
[98] See also COM/2018/0183 final on 'A New Deal for Consumers' on the importance of empowering consumers that are interested in sustainable products to make informed purchasing decisions, supported through EU labelling instruments.

A+, A++ and A+++) and B.

In the area of environment more broadly, the EU Ecolabel is a voluntary labelling scheme that was established by the Commission in 1992. It recently underwent a Fitness Check and the results[99] confirmed its useful role as a voluntary instrument for businesses to facilitate the transition to a circular economy, provide information on environmental performance of products to consumers, as well as in business-to-business transactions. While the role of the EU Ecolabel is more limited in some sectors, it can be very successful and impactful in others, where there is strong demand from big players in the market.[100]

Consumer trust (e.g. through third party verification), transparency, clarity and credibility are essential to make labels successful. An EU harmonised approach is considered more effective than a fragmented national approach with 28 different labels. Awareness efforts are another key element of making consumers and citizens aware of EU labels and hence ensuring widespread uptake. Commission services are also stepping up efforts on behavioural testing of EU labels to design labels that are clear and well-understood by consumers.

6.4.4. Impact of preferred option on low-carbon indices

It appears urgent to invest in assets and projects that have a positive impact in terms of GHG emissions and contribute to the Paris objectives. For this reason, the harmonisation of sound and transparent methodologies based on EU minimum standards for different types of low-carbon indices would provide all types of investors pursuing different types of low-carbon strategies with adequate tools to assess the coherence in terms of suitability between their fund/portfolios and the benchmark and track/measure the performance against a low-carbon benchmark. With a sound methodology to select its underlying assets, an index, can also help in aligning corporate strategies and the economy with climate goals.

6.5. Social impacts

The social impacts of the preferred policy options are currently difficult to assess. As noted on several occasions by different categories of stakeholders, the lack of relevant expertise on non-financial factors - and in particular social issues - hampers the integration of these aspects into investment decisions. However, the mandatory consideration of ESG factors by relevant entities is expected to result in the development of higher expertise on the analysis and modelling of non-financial factors, including social factors. In the long-term, this is expected to result in increased mainstreaming of social risks in investments. With regard to the taxonomy, as the scope is currently limited to environmental issues, no immediate social impacts are expected. This may change once the proposed initiative is reviewed – and possibly expanded to also cover social objectives.

VII. HOW WILL ACTUAL IMPACTS BE MONITORED AND EVALUATED?

Ex-post evaluation of all new legislative measures is a top priority for the Commission. The Commission services will establish a programme for monitoring the outputs, results and impacts of this initiative one year after the legal instrument becomes effective. The

[99] See the REFIT report COM(2017) 355

[100] The Confederation of European Paper Industries (CEPI), for example, estimates that the market value of the EU Ecolabel for the paper industry amounts to up to 20% of the turnover, resulting in 16 billion EUR annually (according to CEPI a conservative estimate in the absence of EU statistics).

monitoring programme will set out the means by which the data and other necessary evidence will be collected. An evaluation is envisaged five years after the implementation of the measures. The objective of an evaluation is to assess, among other things, how effective and efficient the measures have been in terms of achieving the objectives presented in this impact assessment and to decide whether new measures or amendments are needed.

The success of this initiative will be monitored and evaluated in terms of the positive contribution of each of the proposed actions to the overarching goals of the Commission Action Plan on "Financing Sustainable Growth" and in particular to the specific objectives of (i) ensuring a clear and coherent approach across sectors and Member States as regards the integration of ESG factors by relevant entities in their investment/advisory process; (ii) increasing transparency towards end-investors by improving ESG-related disclosure requirements, and (iii) providing clarity at EU level on what are sustainable economic activities.

Specifically, for the **integration of ESG factor**s in the investment and advisory process, success can be defined based on three indicators: (i) the level of ESG integration is above the current level and the expected growth rate of ESG integration by relevant entities; (ii) an increase in the level of transparency regarding ESG integration as reported in surveys of end-investors; and (iii) an increase in the demand of sustainable investments (thanks to reduced search costs). As regards **disclosure**, improvements in the quantity and quality of the information disclosed will be considered indicators of better transparency and hence of the success of the proposed measures. The timely development of the **taxonomy** along the steps outlined in Section 5 as well the future different uses of the proposed classification will be measures of its success. Lastly, the introduction of new categories of **benchmarks** allowing the use of appropriate indices by funds with a specific low-carbon investment strategy would signal the success of this measure.

Where relevant and in particular for the proposed taxonomy, future evaluations will also analyse to what extent the specific safeguards proposed to mitigate possible risks on e.g. competition aspects, fairness, excessive costs, consistency of incentives, risk of stranded assets, impact on liquidity in financial markets, and greenwashing have worked in practice, and determine whether any adjustments are needed in some areas.

The Commission services will measure progress through general key performance indicators (KPIs)**.** As announced in the Action Plan, the Commission will also set-up in late 2019 a dedicated public-private platform on sustainable finance, which will among other tasks monitor the flow of investment in sustainable assets and activities and could serve as a forum for information sharing. The Commission services will consider using the following to monitor and evaluate:

On *integration of ESG factors* in the investment *and advisory processes*

- Data on the performance of relevant entities' products/services before and after the implementation of the proposals;
- Baseline survey and follow up survey (5 years) to (i) monitor the market evolution of sustainability preferences by end-investors, (ii) how financial entities incorporate end-investor preferences in their procedures and (iii) the inclusion of questions on client's preferences as regards sustainability in the suitability test of investment advisors.

- Evolution of information used when integrating sustainability factors, i.e. number of sustainability ratings providers and the costs of producing sustainability ratings and the fees charged;
- A report, which could be undertaken by ESMA, on the experience gained by regulators in enforcing the initiative and how cooperation has worked.

On *disclosure*

- Impact on end-investors' portfolio choices when comparing financial products using available sustainability information by baseline survey and follow up survey to monitor market evolution and costs of disclosure;
- Mystery shopping to assess compliance / timing of disclosure of sustainability factors and the accuracy of the provided information;
- Supervisory / ESA monitoring to keep track of potential mis-selling.
- The share of households' financial assets invested in products targeting a low carbon strategy.

On *taxonomy*

- Baseline survey and follow-up survey (5 years after entry into force) to monitor the evolution of the use of taxonomy by public and private entities;
- A Commission report on the functioning and deliverables of the dedicated public-private platform on sustainable finance, with a specific focus on the taxonomy (3 years after the establishment of the platform).
-

On *low-carbon benchmarks*

- Evolution in the number and size of funds/portfolios using low carbon and positive carbon impact benchmarks;
- Number of entities disclosing to be using one of the EU low-carbon benchmarks;
- Number of complaints received by the Commission from relevant benchmark users;
- The costs of producing these benchmarks and the fees charged for the licensing;
- A Commission report under the Benchmark Regulation to review the functioning and effectiveness of the benchmarks and the appropriateness of their supervision (review clause Article 54).

GLOSSARY

Term or acronym	*Meaning or definition*
AIFMD	Alternative Investment Fund Manager directive
AUM	Assets Under Management
CBI	Climate Bonds Initiative
CDP	Carbon Disclosure Project
CIR	Carbon Impact Ratio
CSR	Corporate Social Responsibility
DG FISMA	Directorate-General for Financial Stability, Financial Services and Capital Markets Union
EBITDA	Earnings before Interest, Taxes, Depreciation and Amortization
ECOFIN	Economic and Financial Affairs Council
ECON	European Parliament Committee on Economic and Monetary Affairs
EEA	European Environment Agency
EFSI	European Fund for Strategic Investments
EIB	European Investment Bank
EIF	European Investment Fund
ELTIF	European Long-Term Investment Funds
EMCS	Environmental Markets Classification System
ENVI	European Parliament Committee on the Environment, Public Health and Food Safety
EPBD	Energy Performance of Buildings Directive
ESAs	European Supervisory Authorities
ESG	Environmental, Social and Governance
ESMA	European Securities and Markets Authority
ESP	Employee Savings Plan
ETS	Emissions Trading System
Eurosif	European Sustainable Investment Forum
EuSEF	European Social Entrepreneurship Funds
EuVECA	European Venture Capital Funds

FCA	Financial Conduct Authority (UK)
FSB	Financial Stability Board
FSC	Financial Services Committee
FTE	Full-Time Equivalent
FTSE	Financial Times Stock Exchange (“London Stock Exchange”)
GBP	Green Bond Principles
GFSG	Green Finance Study Group under G20
GHG	Greenhouse Gas
GIIRS	Global Impact Investing Ratings System
HLEG	High Level Expert Group [on Sustainable Finance]
ICB	Industry Classification Benchmark
IDD	Insurance distribution directive
IEA	International Energy Agency
IORP	Institution for Occupational Retirement Provision
IRIS	The impact Reporting and Investment Standards
KID	Key Information Document
KPIs	Key Performance Indicators
LCI	Low Carbon Indices
MiFID	The Markets in Financial Instruments Directive
MiFIR	The Markets in Financial Instruments Regulation
NECPs	National Energy and Climate Plans
NFID	Directive on disclosure of non-financial and diversity information by certain large undertakings and groups
NGOs	Non-Governmental Organizations
OECD	Organisation for Economic Co-operation and Development
OEF	Organisation Environmental Footprint
OJEU	The Official Journal of the European Union
PEF	Product Environmental Footprint
PEPP	Pan-European Personal Pension Product
PRI	Principles for Responsible Investment
PRIIP	Packaged retail investment and insurance products

Relevant entities	For this impact assessment, relevant entities are defined as asset managers, institutional investors, investment advisors. Investment advisors covers investment firms providing investment advice and insurance distributors advising on insurance-based investment products.
RSB	Regulatory Scrutiny Board
RTS	Regulatory Technical Standards
SDG	Sustainable Development Goal
SEI	Sustainable Energy Investment
SIP	Statement of Investment Principles
SRI	Socially Responsible Investments or Sustainable and Responsible Investment
Sustainability investment objectives, sustainability objectives, sustainable investments.	For this impact assessment, these terms are all synonyms.
TCFD	Task Force on Climate-related Financial Disclosure
TEEC	Transition Énergétique et Écologique pour le Climat (French Label for the Energy and Ecological Transition)
TFEU	Treaty on the Functioning of the European Union
UCITS	Undertakings for the Collective Investment of Transferable Securities
UNEP	United Nations Environment Programme
UNEP FI	United Nations Environment Programme (UNEP) Finance Initiative
UNFCCC	United Nations Framework Convention on Climate Change

ANNEX 1: PROCEDURAL INFORMATION

I. Lead DG, D*E*cide Planning/CWP references

This Impact Assessment Report was prepared by Directorate C "Financial markets" of the Directorate-General for Financial Stability, Financial Services and Capital Markets Union" (DG FISMA).

The Decide Planning reference of the file titled "Sustainable Finance Initiative" is PLAN/2017/1954.

The EU has set itself ambitious climate, environmental and sustainability targets, through its 2030 Energy and Climate Framework, the Energy Union and its Circular Economy Action Plan.

The new legislations and amendments to existing legislations supported by this impact assessment have been announced in the "Action Plan: Financing Sustainable Growth" (7.03.2018).

II. Organisation and timing

Several services of the Commission with an interest in the assessment of the initiative have been associated in the development of this analysis.

Three Inter-Service Steering Group (ISSG) meetings, consisting of representatives from various Directorates-General of the Commission, were held in 2017 and 2018. They were chaired by the Secretariat General (SG).

The first meeting took place on 25 October 2017 and was attended by DG CLIMA, ECFIN, ENER, ENV, JUST, MOVE, SJ and the SG.

The second meeting was held on 17 January 2018. Representatives from DG CLIMA, ECFIN, ENER, ENV, JUST, MOVE, SJ and the SG were present.

The third meeting was held on 6 March 2018. Representatives from DG BUDG, CLIMA, ECFIN, ENER, ENV, JUST, MOVE, SJ and the SG participated. This was the last meeting of the ISSG before the submission to the Regulatory Scrutiny Board (RSB) on 16 March 2018. The hearing with the RSB took place on 18 April.

The fourth meeting was held on 23 April 2018. Main purpose was to consult on the legal texts and seek input from other DGs to strengthen the impact assessment following the negative opinion issued by the RSB on 20 April. Representatives from DG BUDG, CLIMA, ECFIN, ENER, ENV, JUST, MOVE, EPSC, SJ and the SG participated.

The fifth meeting was held on 3 May. Main purpose was to consult on the legal texts and the impact assessment after re-submission to the RSB on 26 April.

In addition, DG FISMA had numerous bilateral exchanges with other DGs (in particular CLIMA, ENV, ENER, JUST, SJ and the SG) throughout the preparation of the impact assessment and the legal texts.

DG FISMA updated the Impact Assessment by taking into account the comments made by other DGs. In particular, the following changes were made:

- At the request of DG CLIMA, more clarity was provided on the definition of green, ESG and sustainable, and the consistency when using these words in the impact assessment was improved.

- At the request of LS, the section on the legal basis was strengthened by explaining more precisely the legal basis for each of the several initiatives assessed in the impact assessment.
- On taxonomy, DG FISMA extensively consulted in particular with DG ENV, DG CLIMA, ENER, SJ, SG and BUDG on (i) policy options, (ii) the six environmental objectives to be addressed by the taxonomy, (iii) the most appropriate way to define the macro-sectors, sectors and sub-sectors as well as the technical screening criteria for identifying environmentally sustainable activities, (iv) the structure to be put in place to provide technical advice to the Commission on the development of the taxonomy, including its governance.
- At the request of DG BUDG, the budgetary implications of the various structures envisaged to provide technical advice to the Commission on the development of the taxonomy and the methodologies on low carbon benchmarks were provided.
- At the request of DG JUST, it was clarified that, to be considered environmentally sustainable under the taxonomy legislation, any activity would have to be carried out in compliance with minimum safeguards notably in the social and human rights' fields.
- At the request of DG ENV, the methodologies for low-carbon benchmarks make a reference to the Product and Organisation Environmental Footprint (PEF/OEF) methods (at least the greenhouse gas emissions dimension) in the methodology for low-carbon benchmarks.
- At the request of DG MOVE and DG ENER, illustrative examples of the taxonomy in the transport and energy sectors were added.
- On investors' duties, the focus on governance was strengthened at the request of DG JUST.
- At the request of SG, the analysis of the different policy options, in particular those related to the low carbon benchmarks, was strengthened.

III. Consultation of the Regulatory Scrutiny Board (RSB)

The Impact Assessment was submitted to the RSB on 16 March 2018. The hearing took place on 18 April. The RSB issued a negative opinion on 20 April. The main recommendations focused on: (i) the scope of the various initiatives covered by the impact assessment; (ii) issues related to the taxonomy – including the sequencing in the development of this taxonomy; (iii) the specification on some options, in particular as regards, ; (iv) the costs and risk assessment; and (v) the need for a full description of the preferred option, and the monitoring and evaluation foreseen.

Before re-submitting the impact assessment on 26 April, DG FISMA addressed these comments as follows:

- The different scopes of the four different initiatives in terms of financial entities, financial products and economic sectors impacted were explained, as well as the scope of the associated requirements on asset managers depending on their investment style,
- The sequencing/steps/legislative acts for making the four initiatives operational were explained;
- A full description of the preferred option was included, and the links between the different initiatives explained;

- More information on the impact of the four initiatives in terms of costs was provided;
- On taxonomy: (i) the immediate and potential future uses were better described, as well as how the taxonomy would be "operationalised"; (ii) more information was provided on the minimum requirements and technical screening criteria for identifying "eligible" environmental economic activities in delegated acts and the framing of the empowerment requested by the Commission to adopt them; (iii) it was clarified that the nature and magnitude of the costs on stakeholders would be impact-assessed before the adoption of the delegated acts establishing the technical screening criteria; (iv) the consistency and complementarity with already existing EU legislation and policies in other areas (e.g. environment and climate, energy, transport) was explained; (v) the sequencing and then the interactions between "an environmental taxonomy" and a "social taxonomy" were explained; (vi) how the taxonomy would be expanded and updated over time was clarified and the associated costs estimated; and (vii) it was clarified how the co-legislators would be informed/involved throughout the development of the technical screening criteria for level 2.
- A description of existing labelling schemes at EU level in the area of energy and environment was incorporated;
- More information was provided on market-based practices that have developed recently, and current shortcomings in them, as well as issues relating to greenwashing;
- On investors duties, the additional tasks that would be required from asset managers and other relevant entities investors were better described, together with the associated of costs.
- It was clarified that ESG integration in terms of investors' duties is not a widespread practice;
- The main elements for constructing a low carbon benchmark were described.
- The baseline was strengthened;
- More information on the views on issuers and the impact of s (notably in terms of costs) on issuers (notably SMEs) was incorporated;
- The monitoring and evaluation foreseen was more targeted.

A new version of the Impact Assessment was submitted to the RSB on 26 April 2018. The RSB issued a negative opinion on 4 May. The main recommendations focused on: (i) the uses of the taxonomy, and the risks of making them mandatory before the taxonomy has reached sufficient stability and maturity; (ii) the lack of explanation on how the six green dimensions of the taxonomy would be made operational; and (iii) the lack of information on the costs related to investors' duties and disclosure requirements.

Before re-submitting the impact assessment on 8 May, DG FISMA addressed these comments as follows:

- Acknowledging the risk of making the uses of the taxonomy mandatory before it has reached sufficient stability and maturity, the uses have been narrowed to two: (i) Member States or the Union must apply the taxonomy when setting out requirements for financial market participants with regard to the **labelling** of financial products pursuing environmentally sustainable objectives; and (ii)

financial market participants offering financial products marketed as environmentally sustainable shall **disclose** how and to what extent the technical screening criteria defined in delegated acts to identify environmentally sustainable economic activities are used to determine the environmental sustainability of the investments selected for the financial product.

- Furthermore, to ensure that the taxonomy has reached sufficient maturity, having been tested with and understood by relevant stakeholders, before these uses become mandatory, two safeguards have been put in place: (i) these uses are deferred until six months after the entry into force of the first delegated act on climate change, and (ii) they will be subject to the impact assessment that will accompany each delegated act.
- In addition, to further limit the risks, two mandatory uses have been removed: (i) the requirement for administrators of low carbon and positive impact carbon benchmarks to use the concept of 'environmentally sustainable economic activity' defined by the taxonomy when designing parameters of the methodology for selecting the underlying assets of their products, and (ii) the mandatory disclosure by asset managers and institutional investors offering financial products pursuing environmental objectives of the proportion of investments in companies undertaking 'environmentally sustainable economic activities' as defined in the delegated acts.
- How the six green dimensions of the taxonomy will be made operational has been explained in further details.
- Additional information on costs associated with new requirements on investors' duties and disclosure for issuers (in particular smaller issuers) and financial firms has been provided.
- The challenges associated with the development of the taxonomy through delegated acts (notably undesirable diversions of investment activity, unclear ESG compliance requirements, disproportionate costs, a taxonomy developing in sequential stages that delivers flawed or inconsistent incentives and stranded assets, possible encouraged and institutionalised greenwashing, a possible need for third party verification, a litigious environment emerging from a lack of legal clarity and that liquidity in financial markets would suffer from introducing new classes of 'green' securities) have been described. Acknowledging these risks and challenges, a requirement was introduced in the preferred option (and thereafter in the draft taxonomy regulation) that the Commission, when developing delegated acts, would have to assess the impact on competition within and between industries (to ensure that all relevant economic activities within a specific sector can qualify and are treated equally if they contribute equally towards one or more of the six environmental objectives), on existing green financial products and markets, and on liquidity in financial markets – in particular evaluating the risk to give rise to stranded assets or to deliver inconsistent incentives
- The necessity to specify technically, for each economy activity, how it will be determined if it "does not harm" any other objective and if it "contributes substantially" to at least one of the six objectives is now acknowledged. The technical screening criteria for determining if an economic activity "contributes substantially" to at least one of the six objectives each environmental objective

and if it "does not harm" to any other objective would be developed through delegated acts. These delegated acts will be impact assessed.

- Better consideration was given to costs associated with the development of methodologies for low carbon or positive impact carbon benchmarks. As a result, the preferred option now is to establish at EU level minimum standards in the development of these methodologies (instead of maximum harmonisation requirements leading to a fully harmonised methodology, which would be more costly).

On 14 May, the RSB issued a positive opinion with reservations, which DG FISMA addressed as follows:

- On taxonomy: (i) further clarification was provided on how the notions of "do no harm" and "contributing substantially to sustainability" will be made operational; and (ii) it was clarified that future evaluations would also analyse to what extent the specific safeguards proposed to mitigate possible risks on e.g. competition aspects, fairness, excessive costs, consistency of incentives, risk of stranded assets, impact on liquidity in financial markets, and greenwashing have worked in practice, and determine whether any adjustments are needed in some areas
- On investors' duties and disclosures: (i) it was clarified that it is the disclosure requirements on products/services pursuing sustainability objectives that would satisfy the end-investors' need to identify "ethical investments" – and not the transparency requirement on ESG integration under investors' duties; (ii) examples of situations where ESG related information and data may not be directly available on the market or the available data may be of low quality and not comparable were incorporated; and (iii) it was clarified that disclosure requirements on sustainable products also cover asset managers that are part of banking and insurance groups.
- Some tables on costs and benefits were improved to make the cost-benefit trade-off more transparent.
- Lastly, a full reviewing, editing and streamlining of the text was completed.

IV. Evidence, sources and quality

The impact assessment largely benefited from the work of the High Level Expert Group (the HLEG) on Sustainable Finance established in December 2016 by the European Commission to help it develop an overarching and comprehensive EU strategy on sustainable finance. The HLEG, which worked intensively for 14 months, comprised 20 senior experts from civil society, the finance sector and academia as well as a number of observers from European and international institutions. To further its analysis and gather feedback, it also reached out to non-HLEG stakeholders to obtain targeted feedback on their analysis and further specify their recommendations to the European Commission

In addition, the comprehensive qualitative and quantitative evidence from the following consultations has informed/supported this impact assessment:

- Public consultation on long-term and sustainable investment – 18 December 2015 - 31 March 2016

- Feedback on the Inception Impact Assessment on institutional investors' and asset managers' duties regarding sustainability – 13 November - 11 December 2017
- Public consultation on institutional investors' and asset managers' duties regarding sustainability – 13 November 2017 - 29 January 2018
- Targeted interviews with stakeholders and questionnaires on ESG integration and taxonomy
- Studies/projects on sustainable finance with European Commission participation
- Conference on the Interim Report of the High Level Expert Group on Sustainable Finance on 18 July 2017
- High-level conference on Sustainable Finance on 22 March 2018
- European Parliament draft report for a resolution on sustainable finance – 2 February 2018
- Consultation of Member States through Council meetings

See Annex 2 for more details on these consultations.

Other sources used included: EIB, UNEP, Eurosif, OECD, and other studies and papers referred to in the *final annex on "References".*

ANNEX 2: STAKEHOLDER CONSULTATION

I. Overview of consultation activities

1. Public consultation on long-term and sustainable investment – 18 December 2015 - 31 March 2016
2. Public consultation on the Interim Report of the High Level Expert Group on Sustainable Finance – 18 July - 20 September 2017
3. Feedback on the Inception Impact Assessment on institutional investors' and asset managers' duties regarding sustainability – 13 November - 11 December 2017
4. Public consultation on institutional investors' and asset managers' duties regarding sustainability – 13 November 2017 - 29 January 2018
5. Targeted interviews with stakeholders and questionnaires on ESG integration and taxonomy
6. Targeted questionnaire on the usefulness of suitability tests
7. Targeted interviews with stakeholders and questionnaire on the usefulness of a harmonised methodology for a low carbon index
8. Studies/projects on sustainable finance with European Commission's participation
9. Conference on the Interim Report of the High Level Expert Group on Sustainable Finance – 18 July 2017
10. High-level conference on Sustainable Finance – 22 March 2018
11. European Parliament draft report for a resolution on sustainable finance – 2 February 2018
12. Consultation of Member States through Council meetings
13. Detailed overview of individual responses per policy area

II. Stakeholder consultations

1. Public consultation on long-term and sustainable investment

In December 2015 the European Commission (DG JUST) launched a public consultation on long-term and sustainable investment. The consultation document provided for 31 questions in total. The period of consultation ran from 18 December 2015 until 31 March 2016. The summary of the responses to the public consultation was published in October 2016 (EC, 2016b).

The objective of this public consultation was to gather information on how institutional investors, asset managers and other service providers in the investment chain factor in environmental, social and governance (ESG) information and performance of companies or assets into investment decisions, and what the possible obstacles to long-term, sustainable investment are. This consultation was launched in the context of aspects relevant for the Capital Markets Union project.

91 replies were received. These came from a broad variety of respondents, including institutional investors, asset managers and their respective associations, as well as NGOs, public authorities, business federations and other service providers. As to the geographical distribution, most responses came from the UK, France, Belgium, Germany and the Netherlands.

In the context of the present impact assessment, individual responses were analysed to identify any feedback on taxonomy, benchmarks, suitability and the role of investment advisors and consultants, as well as any element (e.g. quantification, problems, solutions, references to national legislation and private initiatives) that could further inform this impact assessment.

Recurring themes that are relevant for the present analysis include:

- The link between fiduciary duty and ESG: most respondents saw no contradiction between the two; however, views were split between those who would prefer a (regulatory) clarification and those who would not.
- EU legislation and ESG integration: some pieces of EU legislation were perceived by respondents as problematic for ESG integration; this applied in particular to accounting rules and capital requirements under Solvency II (according to some respondents).
- ESG information: a vast majority of respondents indicated that while there is a lot of information available, its comparability and reliability remains problematic. This is particularly the case for ESG information disclosed by investees.

Overall, the consultation appears to have shown that the markets do not sufficiently internalise ESG risks and respond to ESG opportunities. Many contributors underlined that the transition to "mainstream" sustainable investment needs to be appropriately supported and called for actions to resolve the mentioned problems. More detailed input from this consultation has been included in the relevant sections of this impact assessment.

2. Public consultation on the Interim Report of the High Level Expert Group on Sustainable Finance

The High-Level Expert Group (HLEG) on Sustainable Finance was set up at the end of December 2016 to help develop an overarching, comprehensive EU strategy on Sustainable Finance by giving operational, practical, and concrete recommendations. The HLEG published its interim report on "Financing a Sustainable European Economy" (HLEG 2017a) in mid-July 2017 and presented the report at a conference on 18 July 2017.

In order to gather targeted feedback on the analysis and reflections in the interim report, as well as to inform the preparation of the final report, the HLEG prepared and issued a consultation questionnaire. Each HLEG member and observer received responses to all questions relevant to their respective work streams within the HLEG, thus ensuring that responses from the consultation were considered in the context of defining the final recommendations.

An aggregated and anonymised feedback statement (HLEG 2017b) was published along with the HLEG final report (HLEG 2018) on 31 January 2018. This statement summarises the respondents' answers and serves as a further contribution to the wider policy debate on Sustainable Finance in the European Union.

Certain strong trends transcending all the answers were noted, including the following ones – of which the first three are directly relevant for this impact assessment:

- More than 30% of respondents underlined the importance of a clear policy and regulatory framework setting out a long-term EU strategy on sustainability and providing a favourable environment for sustainable investment and subsequent

finance.

- The necessity to develop a commonly agreed taxonomy of sustainability is another outstanding concern expressed by more than 20% of respondents. Among others, replies from the banking and the insurance sectors, but also from public authorities highlighted the need for a clear and generally accepted taxonomy.
- Another issue which was at the centre of respondents' attention is the definition of fiduciary duty, which generally could be extended to embed wider environmental, social and governance considerations. In particular replies from financial system participants and facilitators indicated the importance of clarifying the definition of fiduciary duty which should include the notion of sustainability.

More than 30% of participants also expressed their conviction about the importance of improved disclosure, including data quality, availability and comparability, harmonised metrics, and standardised reporting requirements. The issue of transparency was raised frequently with regard to credit rating agencies. Many respondents advocated for more incisive incorporation of ESG in credit ratings and a good share made clear references to the Task Force on Climate-related Financial Disclosures (TCFD).

3. Feedback on the Inception Impact Assessment on institutional investors' and asset managers' duties regarding sustainability

The inception impact assessment on institutional investors' and asset managers' duties regarding sustainability (EC, 2017b) was published on 13 November 2017 with a possibility to provide feedback until 11 December 2017.

The Commission received eight responses to the inception impact assessment (EC, 2017c).[101] All of them supported the Commission's work to ensure that sustainability factors are assessed, consistently taken into account and disclosed by institutional investors and asset managers.

The respondents raised a variety of issues such as: definition, scope and materiality of sustainability factors; need for regulatory intervention at EU level (legislative action vs. guidance); transparency and disclosure; need for flexibility and proportionality; clarity of investors' duties in the existing EU legislation; supervision of ESG integration; comparability and reliability of available data; taxonomy; and risk management and governance arrangements.

4. Public consultation on institutional investors' and asset managers' duties regarding sustainability

On 13 November 2017 the Directorate-General for Financial Stability, Financial Services and Capital Markets Union (DG FISMA) of the European Commission launched a public consultation on institutional investors and asset managers' duties regarding sustainability (EC 2017b). The consultation closed on 29 January 2018. The feedback statement to this

[101] The responses for the inception impact assessment came from Invest Europe (Belgium), INVERCO (Spain – Asociación de Instituciones de Inversión Colectiva y Fondos de Pensiones), BVI (Germany – Bundesverband Investment und Asset Management e.V.), Better Finance (Belgium), BCSD (Portugal – Conselho Empresarial para o Desenvolvimento Sustentável), European Fund and Asset Management Association (Belgium), Association of the Luxembourg Fund Industry and the Austrian Federal Economic Chamber.

public consultation was published by the European Commission in May 2018 (EC 2018b) and answers have extensively informed this impact assessment.

The purpose of the consultation was to seek views on how institutional investors and asset managers (could) include ESG factors when taking investment decisions. This would help them allocate capital more efficiently by taking into account sustainability risks, rather than merely seeking to maximise short-term financial returns. Respondents were invited to provide concise and operational suggestions on measures that can be enhanced or on complementary actions to deliver the policy goals.

The consultation followed up on two of the eight early recommendations delivered by the HLEG in its interim report of mid-July 2017 (final HLEG report was published on 31 January 2018). One recommendation focused on establishing a "fiduciary duty" that encompasses sustainability. The HLEG suggested clarifying that the duties of institutional investors and asset managers explicitly integrate material ESG factors and long-term sustainability. Another recommendation focused on strengthening "disclosure" on all sustainability dimensions.

The consultation document provided for 37 questions in total. including sub-questions. The first section was addressed to all respondents and had questions on general overview, problem, policy options and impacts for stakeholders. The second section was specifically addressed to end-investors and the third section to relevant investment entities. The questions focussed on several issues such as *inter alia* the relevance of ESG factors in the investment decision-making process, the consideration and level of integration of sustainability factors, possible constraints and risks/opportunities related to sustainability factors, disclosure of information on sustainability factors and costs/benefits due to the integration of sustainability factors.

DG FISMA received 191 responses to the consultation. Contributions were made by a broad variety of stakeholder groups, including beneficiaries and end clients, banks, pension and insurance providers, asset managers, investment advisors, service providers, issuers, and law firms as well as national, EU and international regulatory and supervisory authorities. Replies originated in 17 European and five non-European countries.

5. Targeted interviews with stakeholders and questionnaires on ESG integration and taxonomy

In order to support the preparation of this impact assessment and in parallel to the public consultation on institutional investors' and asset managers' duties regarding sustainability, the Commission conducted targeted stakeholder interviews to gather more detailed information on the issues raised in the public consultation and obtain views on taxonomy. These interviews took place in January – February 2018, targeting medium-sized/large asset managers and institutional investors (insurance companies and pension funds) that have already integrated ESG factors in their investment decision process and/or have SRI products. In total, 23 entities were interviewed. Questionnaires on integration of ESG factors in the investment decision process and on taxonomy were sent out to the interviewees to obtain their input and data.

Need for clarity and disclosure: The vast majority of interviewed entities agreed about the need for clarification at EU level on the fact that duties towards investors imply assessing ESG-related risks and taking them into account if they are relevant/material. Only 3 entities did not agree: one insurer stated that Solvency II already contains sufficient language and two asset managers replied that the concept of investors' duties

already means covering all relevant risks. There is also a need to develop ESG expertise/education among relevant entities and communicate in a transparent way via good disclosure.

Areas of ESG integration: The most common areas of ESG integration identified by interviewed entities were investment strategy, risk management, governance measures (i.e. ESG specific committee, ESG board member, ESG internal control processes), engagement with investees and voting policy. Some respondents also mentioned that they have in place separate ESG policies and reporting processes to an ESG committee and the board. In some cases, ESG integration is aligned with remuneration policies.

Benefits of ESG integration: Among the main reasons for integrating ESG factors in their investment process, asset managers mentioned the positive impact on financial performance (particularly over the long term), improved risk/return characteristics of the managed portfolio, reputational benefits of ESG integration, and ability to attract new clients. Insurers and pension providers mentioned an increased investor/customer demand due to the integration of ESG factors.

Barriers to ESG integration: All interviewed entities except one insurer indicated that the lack of good quality and comparable data from investees/companies is an important barrier to assessing risks related to ESG factors. An overwhelming majority mentioned that there is a lack of common metrics, tools and methodologies to analyse ESG factors. It is not easy to analyse these non-financial factors with standard tools and models used to assess financial risks. Almost all of the interviewed entities use ESG ratings, data and research from external providers, with the cost of acquiring these services/data varying between EUR 80 000 and EUR 150 000 on average per year. The majority of the interviewed entities combine external ratings with their own internal research, which consists of quantitative analysis and models developed internally, as well as qualitative analysis of companies' business models. A small/medium asset manager indicated that the overall cost of ESG integration is about 1-1.5% of the total cost of the product/service, which includes the cost of collecting ESG data from external providers, and the additional internal/organisational costs linked to setting up documentation, preparing a prospectus, drafting contracts (legal), and monitoring the exposure (risk management). Other barriers mentioned by almost all respondents were the lack of expertise/education on ESG issues and compliance costs (consisting primarily of costs related to IT systems and processes, costs of conducting research, consultancy and legal costs). In particular, investment in ESG expertise was mentioned as the most needed element in order to assess and integrate ESG factors. Most respondents also emphasised that the lack of harmonisation of ESG concepts/EU taxonomy is a significant issue, which, if addressed, could lower the costs of analysing ESG factors. On proposed policies, answers from the interviewed entities indicated that some EU guidance or standardisation of risk factors' assessment would be helpful – with some expressing a preference for setting minimum standards.

Disclosure on ESG integration: Most of the interviewed entities make ESG-related disclosure at entity level and in annual/periodic reports, while others have client-specific disclosure, which is not public. A few entities have started to make public ESG disclosure at product/fund level because the assessment of ESG risks is done at the same level; hence, disclosure at product level does not require significant additional costs. While some entities consider that there is a need of harmonisation at EU level of how to disclose integration of ESG factors, some indicate that it would be costly to do it at product level. In particular, the review of the prospectuses is the most costly part of disclosure, with a cost around EUR 40 000 per product according to several respondents).

In contrast, one entity indicated that for legislative or other reasons they have to update their products' prospectuses annually. Therefore, adding ESG disclosure at the moment when the prospectus is updated would not require an additional cost.

On **taxonomy,** the majority of interviewees agreed that a taxonomy at EU level would be helpful to fulfil their investor duties and take into account ESG factors in their investment decision process. Some interviewees have developed an internal taxonomy while others are using existing taxonomies with some adjustment. Three stakeholders indicated that they plan to develop or are in the process of developing their own taxonomy. Several interviewees were aware of government-led and market-led initiatives on sustainable finance and taxonomy.

The majority of interviewees saw the need for regulatory intervention at EU level with the involvement of market participants. A minority of stakeholders expressed preference for principle-based guidance. A taxonomy would have a positive impact on end-investors as it would facilitate the creation of more opportunities for sustainable investments. The majority of interviewees called for coverage of all three dimensions, starting with the E and then continuing with the S and the G. Finally, one of the interviewees commented that any legislation on ESG should regard the whole investment portfolio as investors should know the impact of all their investments.

6. Targeted questionnaire on the usefulness of suitability tests[102]

The replies to the questionnaire on the usefulness of suitability tests showed that during the suitability assessment process either a general question is asked in relation to ESG preferences in the questionnaire to collect clients' information or several specific questions are posed in order to clearly understand clients' preferences as regards sustainable finance. One respondent noted that they present or make available to clients their ESG risk management policies as part of their presentation of a product as these polices can impact the process of investments' selection.

The level of interest of clients in considering ESG factors in their investment decision process and choice of asset managers depends on each client, but overall this interest is growing. This is evident from the increase in the request for information linked to ESG issues.

Asset managers integrate (a) question(s) related to ESG issues into the questionnaire to collect clients' information due to the following reasons: i) this is an opportunity to explain the investment strategy in place; ii) a prominent role of ESG factors in the advisory process could be used as an element of differentiation which can be communicated to their clients; iii) it raises the awareness of clients on ESG factors/products; and iv) they believe that it is their role to initiate the discussions on ESG factors/products.

However, one respondent stated that they have not integrated such questions as the majority of their clients delegate to them the risk management of their investments, including the ESG risk management. Therefore, the clients have to study the ESG risk management policies in place and decide if these policies satisfy them.

For most respondents, a minority of their clients raise proactively ESG issues during the advisory process. Some of the reasons for this are: i) the information on ESG products is

[102] Please note that ESMA would consult market participants to modify its guidelines on suitability assessment as regards the integration of ESG preferences.

not very transparent; ii) the risk of 'greenwashing' of existing documentation is high; and iii) there is a lack of education on the impact of sustainability factors on risk and performance. In the case of one respondent, a majority of their clients raise these issues during the advisory process.

Respondents had divergent views on the need for providing more information to clients (e.g. in the prospectus, key information documents under the Packaged Retail and Insurance-based Investment Products Regulation or on an asset manager's website) on ESG factors and sustainable finance. Some believed that investors have sufficient information to take informed investment decisions. These respondents were concerned that harmonising the type of ESG information in product documentation might bring large discrepancies in understanding the reality of an asset manager's ESG risk management policies. Some ESG information should be made available to clients, but asset managers should choose the presentation format as they know best the specificities and characteristics of their ESG risk management policies.

However, there was also support for the provision of further ESG information as it would be useful for investors, especially individual investors who are by nature mostly long-term driven and therefore have a great need for sustainable finance products. In addition, it was pointed out that the issue is a matter of educating the investment advisors and fund distributors, as well as of making ESG portfolios transparent.

Constraints that prevent asset managers, to one extent or another, from integrating ESG factors in the suitability assessment include: i) the high costs involved; ii) lack of time due to the complexity of the advisory process and/or the lack of education of their clients; iii) their methodologies for the calculation of risks are not tailored to adequately take into account ESG risks; iv) lack of expertise and experience of their staff on ESG products; and v) the belief that clients are not interested in ESG products. Again, the importance of ESG education and training of investment professionals and advisors working with clients was stressed.

Respondents consider ESG factors in their product selection, but with different periodicity (i.e. always or only when the product is specifically dedicated to ESG strategies).

As for requiring the integration of ESG considerations into the suitability assessment, views were split among the options of not doing it, using non-binding guidance or clearly requiring it in legislation.

7. Targeted interviews with stakeholders and questionnaire on the usefulness of a harmonised methodology for a low carbon index

The **interviews** revealed that views on low carbon indices and their usage are split broadly between two groups of respondents – mainstream asset managers and “pure play” index providers. Mainstream asset managers and index providers see low carbon indices as a tool to manage carbon exposures and the risk of future regulatory intervention (which might lead to "stranded" investment assets), and hence focus on “green beta” or "decarbonized" indices. The basic construction principle of these indices is to take a standard benchmark, such as the S&P 500 or NASDAQ 100, and remove or underweight the companies with relatively high carbon footprints. Mainstream asset managers and index providers strive to reduce the overall carbon footprint of their portfolios when compared to the standard market cap weighted portfolios by achieving e.g. a 40% reduction in carbon footprint when compared to the standard or "parent" indices without aiming to align portfolios to a 2°C investment strategy. "Pure play"

index providers argued that these mainstream "decarbonised" indices are not aligned with a 2°C investment strategy. This group therefore advocated for a more stringent methodology in selecting benchmark components such as a carbon impact ratio.

The interviews also revealed significant differences in how index providers measure carbon footprint. Most mainstream index providers tend to look at carbon emissions directly caused by a company's production activities and indirect emissions generated by the supply of raw materials or other "inputs" procured by the company upstream in order to produce its products or deliver its services. Representatives of "pure play" index providers believe that this approach is insufficient to reflect a company's carbon footprint as emissions caused by a company's customers are disregarded.

Respondents to the **questionnaire** currently do not use a low carbon index because they believe that: (i) the current methodologies do not reflect all sources of CO2 emissions; (ii) their clients (investors) have no confidence in the methodologies employed by available low carbon indices; and (iii) there is an absence of low carbon indices reflecting their investments' approach and style.

The majority of respondents observed that **there is merit in developing a harmonised low carbon index methodology at EU level and stressed the importance of reliable data on indirect carbon emissions caused by users or suppliers of a company (scope 3 emissions)**. They expressed concerns about comparing different sectors and potential excessive focus on some sectors.

When asked what the main features of low carbon indices should be, the majority of respondents observed that scope 3 emissions should be included in assessing CO2 emissions. Half of the respondents noted that the methodology of a low carbon index should be aligned with a potential upcoming EU green taxonomy. Some respondents were sceptical about the development of a harmonised methodology at EU level, mentioning concerns about data, unclear link between carbon footprint and environmental risks with financial impact (e.g. transition risk), and backward-looking nature of most methods. In particular, data on scope 3 emissions are considered more problematic due to lower availability and data quality issues.

8. Studies/projects on sustainable finance with European Commission's participation

In 2015, DG Environment published a study on Resource Efficiency and Fiduciary Duties of Investors (EC 2015) with the objective to provide clarification and policy advice on the integration of environmental and resource efficiency issues into the fiduciary duties of institutional investors. The study did not find explicit legal barriers to integrating sustainability factors into investment decisions either at EU level, or in the Member States included in the sample[103]. However, it identified conflicting interpretations of the fiduciary duty, which may prevent some investors from considering these factors, and revealed that investors do not adequately recognise the importance of environmental and social risks. The report further identified that one of the barriers to integrating ESG factors in investment decision making is the complexity and quality of ESG information, which is not always financially material, consistent and reliable, and hence does not enable comparability.

[103] The following Member States were included in the sample: France, Italy, Germany, the Netherlands, Denmark, Poland and Latvia.

The European Commission also funded two Horizon 2020 projects related to sustainable finance. The first project centred on Developing Sustainable Energy Investment (SEI) Metrics, Benchmarks, and Assessment Tools for the Financial Sector.[104] This project ran from March 2015 to March 2018 and focused on developing tools for private and public entities such as an energy investment roadmap for the financial sector, guidance for institutional investors on setting climate performance targets and launching benchmark indices, and portfolio optimization tools. The second project focused on Energy Transition Risks & Opportunities[105], with the objective to help investors and policymakers understand the energy transition risk and assess its materiality for equity and bond portfolios.

9. Conference on the Interim Report of the High Level Expert Group on Sustainable Finance on 18 July 2017

The European Commission organised a conference "Sustainable Finance: Interim Report" on 18 July 2017 in Brussels to gather stakeholder reactions to the Interim Report of the High Level Expert Group on Sustainable Finance (HLEG 2017a). Approximately 450 participants representing public authorities, the civil society, the financial sector and other stakeholders discussed the analysis and recommendations contained in the report. The conference allowed stakeholders to provide feedback to the European Commission and the HLEG on barriers to and possible solutions for increasing sustainable finance, as well as ways to establish a more sustainable financial system.

10. High-level conference on Sustainable Finance on 22 March 2018

The European Commission held a high-level conference on Sustainable Finance on 22 March 2018 in Brussels. The overall objective of this high-level event was to keep up the momentum established at the One Planet Summit and continue to consolidate the support and commitment from EU leaders and key private players for the changes needed in the financial system to fund the transition towards a low-carbon economy.

This high-level event focused on the key role finance industry and market players should play alongside the EU effort to build the economy of tomorrow: a low carbon, circular and resource-efficient economy. In this context, the European Commission also presented the EU strategy on Sustainable Finance as described in the Action Plan on Financing Sustainable Growth. Besides the high-level keynote speeches, three very fruitful panel sessions with high-level panellists from various sectors took place on the following topics: (i) Financing sustainability: towards a more future-friendly capital allocation; (ii) Commission Action Plan on Sustainable Finance; and (iii) How to translate the EU Strategy in practice? Furthermore, there was a debate on "How fast can the EU deliver?".

There was a strong support for the EU Action Plan on Financing Sustainable Growth from a broad range of speakers, some of them even calling for it to be more ambitious. Many speakers and panellists stressed that: (i) there is an urgent need to take action, given the acceleration of global warming and the impact on the economy and our societies; (ii) the cost of not acting will be larger than the cost of acting; and (iii) the financial sector has a large role to play.

[104] For project publications, please refer to a dedicated website.
[105] For project publications, visit a dedicated website.

11. European Parliament draft report for a resolution on sustainable finance – 2 February 2018

The European Parliament – Committee on Economic and Monetary Affairs – has published a draft report (EP 2018) for a resolution on sustainable finance on 2 February 2018.

The overall objective of this Parliament initiative on sustainable finance is to enable and accelerate the stabilisation of the climate and the protection of the global ecosystem. The role of finance and investments can contribute to ensuring a rapid transition to a sustainable economy, and clear information about the sustainability impacts of financial products. The draft report responds to the final report of the HLEG on Sustainable Finance of 31 January 2018 and lends political support to the HLEG recommendations.

In order to enshrine ESG factors in the EU financial decision-making, the draft report mentions inter alia the issues of taxonomy, disclosure and fiduciary duty. On taxonomy, it calls on the Commission to lead a multi-stakeholder process to establish a robust and credible EU green taxonomy through a legislative initiative. As disclosure is a critical enabling condition for sustainable finance, it urges the Commission to ensure mandatory disclosure. Fiduciary duty should be extended to encompass a mandatory 'two-way' integration process whereby asset managers are obliged to consider ESG factors and clients are asked about their timeframe and sustainability preferences.

The European Parliament's draft report for a resolution on sustainable finance was negotiated among the political groups in the European Parliament and adopted by the Committee on Economic and Monetary Affairs on 24 April 2018. The plenary vote is expected to take place on 28 May 2018.

12. Consultation of Member States through Council meetings

Sustainable Finance was discussed at several Council meetings, including the Economic and Financial Affairs Council (ECOFIN) and the Financial Services Committee (FSC). Meetings held in 2017 focused on the work of the HLEG and its Interim Report.

At the January 2018 FSC meeting, the Commission presented a non-paper on Sustainable Finance to the Member States. The non-paper introduced the Commission's work on the forthcoming Action Plan and highlighted potential policy actions such as on taxonomy, standards and labels for sustainable financial products. Most Member States that intervened were in favour of an EU regulatory intervention to establish an EU taxonomy of sustainable activities. Member States also emphasised a need for flexibility, which was considered in the assessment of policy options.

Before the February 2018 meetings, the Bulgarian Presidency issued notes to the ECOFIN and the FSC, asking the Member States which policy actions need to be taken at European level to promote sustainable finance. They also inquired into existing policy actions of Member States related to the HLEG recommendations.

The ECOFIN Council held on 20 February 2018 showed a wide support for HLEG recommendations and EU-level actions to support sustainable finance. Sustainable finance was also discussed at the FSC meeting on 21 February 2018, with a specific focus on the forthcoming Action Plan and proposal on taxonomy. Overall, there was a broad support for the Commission actions in the area of sustainable finance from 18 Member States. 11 Member States emphasised that a common taxonomy is a key starting point for further policy actions.

Member States expressed a general support for a taxonomy at EU level at the February 2018 meeting of the Expert Group on Banking, Payments and Insurance.

The project also received high-level political support including the European Council, which stated in its March 2018 Conclusions on jobs, growth and competitiveness that "the EU needs to keep working towards a future-proof and fair single market that is fit for the digital age and an enabler for competitiveness, innovation and sustainability" (European Council 2018).

At the April 2018 meeting of the Economic and Financial Committee (EFC) Member States expressed support for the Commission's sustainable finance programme.

13. Detailed overview of individual responses per policy area

a. Duties towards investors/beneficiaries

Table 27: Detailed overview of individual responses on duties towards investors/beneficiaries

Stakeholders	**Clarity on ESG integration and why**	**Where**	**Barriers to ESG integration**
Industry (108 respondents, about half are from the asset management industry) (Size: only 53 asset managers provided information on the Assets under Management (AUM). Median AUM size is EUR 60 billion, with minimum size of EUR 15 million and maximum size of EUR 1.7 trillion)	The vast majority of industry stakeholders supports ESG integration in the investment process (asset managers, institutional investors, individual portfolio managers) as part of their duties towards investors/beneficiaries. The largest agreement was reached for occupational pension providers (94% of industry favour ESG integration). 60% of respondents across all industry sectors think that insurance and pension providers should consult their beneficiaries on an annual/periodic basis on their sustainability preferences. Entities do not want Level 1 measures seen as rigid and prescriptive in order to allow for enough flexibility in the ESG integration, both in the investment decision-making and advisory processes. The reason is that the relevance of ESG	The large majority indicates that ESG factors should be integrated in the following areas: i) governance; ii) investment strategy and risk management; and iii) asset allocation. Several stakeholders focused on sustainable investing rather than ESG integration stating that it is the asset owner that drives decisions on asset allocation and that any regulation should not impose obligations on how and to what extent to incorporate ESG factors.	The most important barriers to ESG integration are lack of data, lack of methodologies and impact metrics to quantify ESG risks, and lack of ESG expertise and experience (over 60% of respondents marked this as important or very important). Because of the lack of common definitions/framework and of good quality data/information, respondents saw social factors as the most difficult to integrate (71% of respondents). Social factors are followed by climate and other environmental factors (challenging for over 55% of respondents), while most respondents do not see the integration of governance factors as a significant challenge. Regulatory barriers and excessive costs for the scale of the company were indicated as the least important barriers to ESG integration. According to feedback from targeted interviews, assessing

	factors differs among sectors due to the different roles and purposes of relevant entities in the industry (asset managers, institutional investors, pension providers, investment advisors), as well as due to the different characteristics of an investment's strategy, time horizon, etc within each industry sector. According to the industry, the assessment and integration of ESG factors has a clear benefit for clients through improved risk management. Costs may arise from the purchase of relevant sustainability data, but these are mostly over the short term. ESG integration will increase ESG awareness of end-investors/ beneficiaries, bring reputational benefits and attract new investors.		ESG risks should be feasible even for smaller entities.
End-investors (28 private individuals)	Among those who responded, 87% take ESG factors into account when choosing investment products or investment entity.		
Public authorities and international organisations (10 respondents of which 3 Member States, 3 supervisory authorities, 1 local government	There was an overall support for the integration of ESG factors. International organizations consider that relevant investment entities should be required to examine the relevance of ESG factors consistently with the time frame of their obligation towards beneficiaries/clients. The objective of considering material ESG	Integration of sustainability should be done by following a general approach that integrates material ESG aspects, in particular with respect to their risk management.	The inadequate knowledge and information/data about these factors, the currently limited methods for their integration and the lack of institutional expertise make it difficult to integrate ESG factors from an operational point of view.

and 3 organizations (OECD, CFA and the UK Institute of Actuaries)	factors in investment decision/ advisory making is to improve the financial performance of an investment (returns and/or risk management) and reinforce the effectiveness of the financial sector. Legislative proposals should take into account differences and existing well-functioning initiatives and structures across the EU and in Member States. All three ESG elements are of equal importance, but their consideration depends on their relevance for each investment product/service.		

b. Disclosure

Table 28: Detailed overview of individual responses on disclosure

Stakeholders	**Level of disclosure**	**Costs**
Industry (108 respondents, about half are from the asset management industry) (Size: only 53 asset managers provided information on the Assets under Management (AUM). Median size of AUM is EUR 60 billion, with minimum size of EUR 15 million and maximum size of EUR 1.7 trillion)	Almost all industry respondents indicate that relevant entities should disclose information on how/where they integrate ESG factors in the investment process (governance, risk management, risk allocation and investment strategy). A majority of the industry respondents indicated that information on ESG integration should be made available in pre-contractual information (e.g. prospectuses) and marketing materials. Feedback received during targeted interviews indicates that public disclosure at entity level, in a comprehensive way, is more appropriate. For some asset managers, disclosure at	Higher costs of mandatory disclosure at product level would be mostly due to updating prospectus (EUR 40 000 per product/service according to one respondent).

	portfolio level would be problematic. Insurers mentioned that mandatory disclosure at product level would be onerous given the quantity and diversity of products. On the suitability assessment, some industry respondents considered that improving transparency would be more effective than a requirement to consult beneficiaries on their preferences. Disclosure on the sustainability impact of ESF funds/portfolios received support by those entities that already have socially responsible products (SRI). They underlined the fact that currently there are very heterogeneous levels of disclosure of impact indicators for sustainability issues and only for a minimum part of the ESG portfolio. They also suggested to start simple, for example with climate issues, where methodologies and efforts to build the effects of climate change related risks into business models are more developed, and then let the industry do the rest via increased awareness.	
End-investors (28 private individuals)	The majority of respondents indicated that the information provided on the different ESG factors is insufficient to help them take informed investment decisions. Respondents stated that in particular information on climate and social factors is lacking, while information on governance is relatively more available.	Most respondents mentioned that although information provision is improving, the information is not comparable and therefore costly to process and understand. Respondents indicated that there is a case for additional guidance as to what is appropriate disclosure in order to achieve higher comparability and higher transparency. Respondents were split on whether this information should be provided on a mandatory or a "comply or

		explain" basis.
Public authorities and international organisations (10 respondents of which 3 Member States, 3 supervisory authorities, 1 local government and 3 organizations (OECD, CFA and the UK Institute of Actuaries)	The majority are supportive of disclosure in annual reports and on websites. Disclosure should cover the four domains as defined by the TCFD: governance, strategy, risk management and indicators/targets used. Experience with the French Energy Transition Law showed that requesting investors to report on the way they take into account ESG factors in their decision making ('comply or explain' principle) accelerated the process. The French authority indicated that the reports on responsible investment published by the Autorité des Marchés Financiers in 2015 and 2017 underlined the importance attached by investors to reliable and verifiable information on ESG factors. In the UK, funds should be able to demonstrate investment outcomes, both financial and non-financial, and should regularly report outcomes and impacts to investors. If exposures are inappropriate in relation to the investment mandate, these exposures should be evaluated and mitigating actions taken. Disclosure should be consistent and in a form that investors can understand.	

c. EU Taxonomy

See Annex 8 Section VII for a detailed overview of stakeholders' views on EU taxonomy.

d. Low carbon benchmarks

Table 29: Detailed overview of individual responses on low carbon benchmarks

Stakeholders	Harmonisation of the methodology	Barriers to the use of low carbon indices	Key elements of the methodology
Industry/Users of the benchmarks • 7 respondents to the questionnaire (3 asset managers, 1 reinsurance company, 1 industry association representing leading global and European banks and other significant capital market players and 1 investor association, 1 index provider) • 3 more respondents made general/oral comments (including 2 benchmark providers)	Five out of seven respondents observed that there is merit in developing a harmonised low carbon index methodology at EU level. The remaining two did not oppose the idea directly, but highlighted some pitfalls. One respondent opposed to the development of a common methodology, fearing that this could distract from efforts to create and use better climate risk metrics and indices. Instead, they suggested the creation of a common low-carbon approach that uses a broader concept than just carbon footprint or carbon intensity data.	Some of those that supported the effort to develop a harmonised methodology stressed: - the lack of reliable data on scope 3 emissions; and - concerns about comparing different sectors and a potential excessive focus on some sectors. Only two stakeholders (one asset manager and one investor association) were clearly interested in following a "pure play" strategy aligned with the 2°C objective because of the modest demand for investments in low carbon products due to the poor performance of pure-play products (these products do not represent the investable universe of companies, but focus on renewable energy, clean technology, and/or environmental services). One asset manager mentioned during an interview that it is not the goal of asset managers to reduce global warming or align with a 2°C strategy. Their mandate is to reduce an (mostly insurance, pensions or sovereign wealth) investor's exposure to carbon-related risks and avoid being invested in "stranded" high carbon	Especially, 5 out of 6 respondents observed that scope 3 emissions should be included in assessing CO2 emissions, many of them would include these alongside scope 1 and 2 emissions. A half of the respondents noted that the methodology of the low carbon index should be aligned with a potential upcoming EU green taxonomy. One respondent suggested, that the methodology needs to be generic enough to allow for innovation and at the same time clear on definitions and integration standards. Some stakeholders underlines that different instruments are required for the two main different investment objectives (i.e. *(i)* contributing to a low-carbon world and *(ii)* reducing carbon-related financial risks in investment portfolios).

		assets. Some stakeholders mentioned their preference for using in-house investment strategies over indices. One stakeholder urged the Commission to stimulate companies to increase reporting also of scope 1 and scope 2 data. One stakeholder mentioned that the Commission has more effective instruments for reduction of carbon emissions, such as the Emissions Trading System (ETS).	

ANNEX 3: WHO IS AFFECTED AND HOW?

Practical implications of the initiative

The preferred options described in section 5.4 to 5.7 will have the following practical implications:

The preferred policy option on **investors' duties** will have an impact on the relevant investment entities, as they are expected to integrate ESG factors in the areas of governance, risk management, investment strategy and asset allocation, suitability tests, and product selection. This will require investments in ESG expertise and tools, especially for those entities that never integrated these factors. The implication will be consistency and clarity about what relevant investment entities should do in terms of taking ESG considerations / risks / factors into account when they make investment decisions.

The areas just mentioned are the ESG elements that relevant investment entities will have to **disclose** on ESG integration (in reports and product information), together with the impact of ESG factors on the risk-adjusted returns of the related product/service. If asset managers / institutional investors claim that they pursue a strategy with a sustainability investment objective, they will have to demonstrate it (disclose the impact of their products/portfolios on climate/environment). End-investors will be therefore able to make informed investment decisions thanks to the higher transparency linked to the harmonisation of ESG integration processes and related disclosure at product level.

The preferred policy option on **taxonomy** will define the conditions for the subsequent creation of an EU environmental taxonomy for the purposes of establishing the environmental sustainability of investments. Such a common understanding will have an overall positive impact on the financial sector as indicated in the summary table below. Any measures adopted by Member States or by the EU for regulating financial market

participants with regard to the labelling of financial products pursuing environmentally sustainable objectives would have to apply the uniform criteria. While Member States would be allowed to continue their national labelling schemes (that might possibly co-exist with the EU Eco-label framework to be extended later to financial products), they would be obliged to use the uniform EU taxonomy for those schemes. As the taxonomy will be gradually developed, public authorities would have to set up a governance framework.[106] This governance framework will guarantee that the taxonomy remains a living classification that can be changed/updated over time.

Meanwhile, administrators of **low-carbon benchmarks** will have to use harmonised minimum standards at EU level. This would drive the possibility for relevant investment entities to adopt these indices as a reference benchmarks and hence to credibly commit to a low carbon strategy. Investors who would like to invest in low carbon footprint issuers would have an appropriate index / tool to assess their investment. This would foster generally accepted market standards to measure a company's footprint and, in consequence, an investment portfolio's carbon footprint, while keeping sufficient flexibility for the private sector to innovate.

Summary of costs and benefits

The following tables present systematically the costs and benefits, which were identified and assessed during the impact assessment process for the preferred policy options outlined in Section 5.

Table 30: Overview of benefits

I. Overview of Benefits (total for all provisions) – Preferred Option		
Description	***Amount***	***Comments***
Direct benefits		
Harmonised EU framework on ESG factors integration		
Potentially enhanced risk-adjusted returns of portfolios and products. Better reflection of investors' preferences in the investment advice.	End-investors: Several of the entities interviewed indicated that integrating ESG factors has a positive impact on performance, particularly over the long-term. Even if no quantitative evidence has been provided, whenever ESG factors are deemed to be drivers of portfolio risk adjusted returns over a relevant time horizon, they should be taken into account by the relevant entities in performing their duties. All risks (financial and non-financial as well) would be taken into account, to the extent that they are integral to generating financial benefits.	When ESG factors are built into in risk models, relevant investment entities are likely to adjust their portfolios and/or their investment recommendations accordingly, leading to reduction of portfolio risks related to ESG factors and potentially higher risk-adjusted portfolio returns. Including ESG factors in financial advice (suitability test) implies more options for end-investors to express their preferences and require their financial advisor to adapt the investment strategy accordingly; this in turn will avoid distortions in savings allocation.
Mandatory disclosure on ESG integration and on sustainability objectives		
Reputational benefits and potential to attract new investors.	Relevant investment entities: potential reputational benefits increase the ability to attract new investors/beneficiaries[107] The magnitude of the benefit varies largely on case-by-case basis due to different size, investment focus and business model,	The disclosure will increase transparency on how asset managers and other relevant investment entities integrate ESG factors in their investment process and advisory recommendations.[108] This will translate into reputational benefits for those

[106] For details, see Annex 8, section IV 'Governance structure for Option 3'

[107] Respondents to the public consultation indicated a high potential impact of this benefit, although no quantification was provided.

[108] This may also translate into further pressure on investees to conduct more sustainable projects and cause more flows into sustainable investments.

	targeted markets segments.	who integrate ESG factors, will increase competition for high standards in ESG integration and disclosure, further improving in this way ESG knowledge, ESG awareness and market transparency.
Reduced search costs for end-investors and increased transparency.	End-investors: More harmonised disclosure on ESG integration and sustainability objectives will reduce search costs. We can expect that there will be incentives, such as reputational benefits, for relevant investment entities to compete for high standards of ESG integration and disclosure. This competition can further positively impact search costs.	Mandatory harmonised disclosure by relevant entities will provide more granular information on ESG integration and sustainability objectives, will enable higher comparability, increases transparency towards end-investors and financial markets, providing them with the tools to take investment decisions that correspond to their sustainability preferences. The additional requirements for products/services offered/provided as pursuing sustainability objectives will further enhance transparency, reduce the risk of greenwashing and help allocate savings towards sustainability portfolios/funds. [109]
EU environmental taxonomy with high granularity		
EU common language on what are environmentally sustainable economic activities	All stakeholders:[110] Very difficult to quantify due to the intangible nature of this benefit.	EU taxonomy will allow for a more transparent understanding of what are environmentally sustainable economic activities, and therefore assist the functioning of sustainable financial markets
Serve as building block for initiatives in the domain of sustainable finance	All stakeholders: This was not quantified as the final benefits will depend on future uses of the taxonomy.[111]	A common EU language for environmentally sustainable economic activities is a first intermediate step to enable a range of targeted initiatives in the domain of sustainable finance. It also plays a key role in tracking and comparing progress made towards achieving the EU objectives on sustainable finance.
Harmonised EU minimum standards for different types of low-carbon indices		
EU minimum standards on methodology will serve as a base for development of low carbon benchmarks.	Benchmark administrators: market opportunities (difficult to estimate) from developing low carbon indices based on EU minimum standards	Due to the minimum methodological standards, the transparency and credibility of low carbon benchmarks will increase – this may contribute to a higher demand for these benchmarks.
Cost savings on the methodology to select investees	Benchmark administrators: reduce development costs related to internal or external methodologies/ratings to select investee companies (expenses on external ESG ratings are estimated around €150 000 - 500 000 [112]).	As the new indices provide a signal for the investors about which companies are appropriate investments for their low carbon strategies, investment entities with these strategies will be able to save a part of their search costs.
Indirect benefits		
Harmonised EU framework on ESG factors integration		

[109] This mandatory disclosure may also, indirectly, reduce the risk of greenwashing which might result from inaccurate non-financial information reported by issuers, as companies as these companies will have a greater interest in providing accurate "sustainable-related" information.

[110] This includes public authorities , relevant investment entities, end-investors and issuers.

[111] For examples of potential uses of taxonomy, please refer to Box 7 in Section 5.6.2.

[112] Stakeholders who were consulted estimated their total expenses on external ratings in the range EUR 150 000 - 500 000.

Potential market opportunity due to higher visibility of ESG risk analysis and competition for high standards of integration.	Relevant investment entities: quantification varies largely on case-by-case basis due to different size, investment focus and business model; moderate to high effect expected as the mention of sustainability may serve as a behavioural nudge.	The integration of ESG preferences into the advisory process will facilitate the investment decisions of clients and the allocation of their savings.
More sustainable corporate decisions as a results of greater engagement with companies by relevant investment entities.	Investee companies: ESG integration in the investment process and the greater engagement by the relevant entities may result in more sustainable operations by investee companies (no quantification as the benefit varies greatly on case by case basis).	Due to the requirement of integrating ESG factors, portfolio managers will be incentivised to ask for more information on ESG factors and engage with investee companies in order to reduce financially material ESG risks, which may result in more sustainable corporate decisions and may reduce funding costs.
Mandatory disclosure on ESG integration and on sustainability objectives		
More informed end - investors.	End-investors: more information and lower search costs usually lead to better investment decisions.	End-investors will be able to take informed investment decisions due to lower search costs and reduced information asymmetry on how investment entities integrate ESG factors in their processes/recommendations; especially the selection within the "sustainable and green" funds universe will be easier due to the additional disclosure requirements for these funds.
EU environmental taxonomy with high granularity		
Reduction of search costs.	End-investors: reduced search costs due to more clarity on what constitutes environmentally sustainable activities.	By bringing about a common language on what are environmentally sustainable economic activities, the EU taxonomy will help reduce the search costs for end-investors and help them make more informed investment decisions.
EU taxonomy facilitates the integration of environmental factors in investment decisions.	Relevant investment entities: clarity on what constitutes environmentally sustainable economic activities also benefits relevant entities in pursuing their environmental objectives.	Relevant investment entities would benefit from the EU taxonomy, as clarity on what are environmentally sustainable economic activities may help them pursue their environmental investment objectives.
Increase availability of data on sustainability from investee companies.	Relevant investment entities and end-investors: not quantifiable as the data will depend on the actual technical criteria developed under Level 2 of the taxonomy and on the extent to which issuers choose to provide more information.	The development of clear technical criteria which are used to identify environmentally sustainable economic activities will provide the basis for comparison of companies engaging in eligible activities. This could provide an incentive to companies to measure and report in a more systematic way on their environmental impact.
Harmonised EU minimum standards for different types of low-carbon indices		
Reduction of search costs driven by	Investors and end-investors: increased transparency and reduced search costs in relation to low carbon investment products.	Due to increased transparency of the methodologies to develop benchmarks, investors will be more protected from the risk of

higher transparency of low carbon investment products.		greenwashing and will not have to invest as much time in analysing which companies/funds are in line with their low carbon preferences. This could also potentially facilitate better access to low carbon investment due to more investment opportunities compliant with the 2°C trajectory.
Reputational benefits.	Relevant investment entities: potential to gain reputational benefits and attract new customers (quantification varies largely on case-by-case basis due to different size, investment focus and business model; moderate effect expected).	New customers may be attracted to funds which track benchmarks that clearly demonstrate a low carbon focus and which may be more covered by analysts.
Potentially lower funding costs for projects aiming to reduce carbon footprint.	Carbon-intensive companies aiming at reducing their carbon footprint: not quantified as the benefit varies greatly on case by case basis, but evidence suggests impact of carbon emissions and their disclosure on company value[113], which can likely translate in a change in funding costs.	EU minimum standards will recognize the role of avoided emissions, carbon-intensive companies aiming at reducing their carbon footprint will be more covered[114] by low carbon funds, which follow relevant benchmarks. Hence, they are likely to enjoy greater access to funding with a reduced funding cost. In turn, this can make carbon reduction projects more economically feasible.
Incentives to invest more in related research.	Wide range of beneficiaries such as end-investors, public authorities, or general public – if there is more investment in related research.	As research costs on low carbon strategies drop due to, among other factors, growing demand for low carbon investment, larger investment in this kind of research can be expected.

Table 31: Overview of costs

II. Overview of costs – Preferred option							
		Citizens/Consumers		Businesses[115]		Administrations	
		One-off	Recurrent	One-off	Recurrent	One-off	Recurrent
Harmonised EU framework on ESG factors integration	Direct costs	None	None	Legal & consultancy costs to set up related processes; adapting models and processes	Relevant investment entities who do not presently integrate sustainability will bear the following	Potential ad-hoc cost of developing guidelines	None/Negligible [116]

[113] Matsumura, Prakash, and Vera-Munoz (2011) observe that, on average, for every additional thousand metric tons of carbon emissions, firm value decreases by $212 000 (firms in the sample produced on average 1.07 million metric tons and the model was corrected for self-selection bias), they also found that median value of firms that disclose their carbon emissions is about $2.3 billion higher than that of comparable non-disclosing firms. Guenster et al, (2011) also provide evidence that carbon emissions have a significant and negative impact on company.

[114] As discussed in Annex 9, current prevailing market practice among low carbon funds is to divest from companies with large CO2 footprint or significantly reduce exposure to them. In contrast with this practice, the methodologies provided under the preferred option will help investors to recognize which of the companies in "brown" sectors have projects targeted at reducing their carbon footprint or activities which contribute to lower emission overall.

[115] Unless specified differently, Businesses stand for relevant investment entities in this table.

[116] Concerning the legislative proposals on fiduciary duties and disclosure, no new FTEs would be required, as this would be covered under the ESA's review. " The ESAs' review specifically requires the European Supervisory Authorities to take into account of environmental, social and governance factors arising within the framework of financial supervision. For example, this will enable the Authorities to monitor how financial institutions identify, report, and address environmental, social and governance risks, thereby enhancing financial viability and stability. The European Supervisory Authorities can also provide guidance on how sustainability considerations can be effectively embodied in relevant EU financial legislation, and promote coherent implementation of such rules upon adoption.

					compliance costs having been estimated between 0.0001 % and 0.0003 % of AuM maximum per year.		
	Indirect costs	None	Potential cost pass through to end-investors/beneficiaries [117]	Opportunity cost of potential de-prioritization of other projects	Issuers will be incentivized to report relevant data (on a voluntary basis)[118]	None/Negligible	None/Negligible
Mandatory disclosure on ESG integration both at the level of the entity and of the product	Direct costs	None	None	Compliance costs: up to €40 000 per prospectus[119]; possible consultancy & legal costs to set up ESG disclosure process may arise	Research costs (already described above as they are needed for integration)[120]	None/Negligible	Negligible[121]
	Indirect costs	None	Potential, cost pass through to end-investors/beneficiaries	None/Negligible	Issuers will be incentivized to report relevant data (already covered above)	None/Negligible	None/Negligible
EU environmental taxonomy with high granularity	Direct costs	None	None	Potential sunk costs for companies which had their own taxonomies[122] Other direct costs depend on final uses of the taxonomy, due to be impact assessed later.	Possible costs when the taxonomy is updated.	IT system adjustment for the use of existing collaborative IT-system (€50 000) for the Platform[123]. Adjustment costs for national labelling schemes that need to incorporate taxonomy	Costs for operating the platform: €2.6 million p.a.[124] Possible costs when the taxonomy is updated for national labelling schemes.
	Indirect costs	None	None/Negligible	Depending on the use of Taxonomy and the technical criteria to be developed (due to be impact assessed later)	Depending on the use of Taxonomy (due to be impact assessed later); issuers will be also indirectly incentivized to report data (on a voluntary basis) as regards the environmentally	None/Negligible	This will depend on the future uses of the taxonomy.

[117] Limited due to the relatively high degree of competition in the investment sector

[118] The integration of sustainability factors by relevant investment entities may lead to greater demand on disclosure by issuers in order to provide more transparent data. This would induce potential disclosure costs for issuers, which are presently not covered by disclosure requirements on non-financial information. See section 5.4.3 for more details.

[119] A transitional period will be applied, limiting these costs. Please refer to section 5.5.1 for more details.

[120] Additional research costs may apply for relevant investment entities who offer funds marketed as "green" due to the requirement to disclose on alignment with the 2 degree climate scenario and carbon impacts. We can at the same time assume that these entities have already a higher expertise available compared to entities which do not offer such investment products.

[121] While impact monitoring may involve the ESAs, it would be only in the form of adding a question in their existing surveys, whereas none or marginal costs can be expected.

[122] As argued in section 5.6, these costs are likely to be outweighed by the savings on maintenance of own taxonomy and benefits of EU taxonomy usage.

[123] Please refer to Annex 8 for more information. These costs will be financed through the EU budget.

[124] Please refer to Annex 8 for the breakdown of these costs included. These costs will be financed through the EU budget.

					sustainable activities		
Harmonised EU minimum standards for different types of low-carbon indices	Direct costs	None	None	€50 000-150 000 for benchmark providers who develop new benchmarks; there may also be costs to adjust disclosure processes to comply with new requirements	Compliance costs related to enhanced disclosure[125]	Development of methodology is already covered by recurring costs of the platform of experts on taxonomy	Tracking and enforcing compliance is already covered by recurring costs of the platform of experts on taxonomy
	Indirect costs	None	Potential cost pass-through to end-investors/beneficiaries [126]	None/Negligible	'Low carbon' issuers will be incentivized to disclose more information to be included in the indexes (disclosure costs already covered above)	None/Negligible	None/Negligible

[125] Asset managers and institutional investors would bear these costs when they use low carbon benchmarks as a reference point. For details, please refer to section 5.5.

[126] Costs borne by the industry, such as potential custom benchmark development costs or benchmark switching costs, would likely be passed on to investors, at least in part. However they would also lead to higher transparency and comparability on low carbon product features and alignment with most transparent indices, which may result in an increase in competition. Savings are likely to materialize as well. As listed in the benefits table, we can assume that investment entities will save some money currently dedicated to screening companies (or purchasing external rating). While it is difficult to weigh these impacts against each other, it should be noted that it is more difficult to pass on costs to consumers in a more competitive market.

ANNEX 4: SUSTAINABLE FINANCE TRENDS IN EUROPE

In the past 20 years, asset owners and asset managers have increasingly turned to sustainable investment[127]. In addition, the need to consider ESG factors in the general investment process of all investment as part of their duties towards clients and beneficiaries has grown albeit at a slow pace (See Box 2 in Section 2.1.2).

Despite the fact that sustainable investment practices are often described in the literature using different terms such as "socially responsible investments (SRI)" or "responsible investments", there is a common understanding that each of those terms indicates the process of integrating investors' concern about ESG factors in their investment decision process (Kreibohm 2016) [128]. At its heart is the concept of a long-term oriented investment approach, which integrates ESG factors in the research, analysis and selection process of securities within an investment portfolio. It combines fundamental analysis and engagement with an evaluation of ESG factors in order to better capture long term returns for investors, and to benefit society by influencing the behaviour of companies (Eurosif, 2016). In this respect, studies and surveys from various sources have provided evidence that a number of asset managers and asset owners consider those factors, but the development over time is slow.[129]

According to the Eurosif study (2016)[130], **sustainable investment strategies** in Europe have developed slowly over the last years. In 2015, the amount of assets subject to

Box 8: Sustainable investment strategies

Exclusions or negative screening consists in eliminating companies or sectors from their portfolio based on one or more ESG characteristics. This strategy has shown exponentially consistent growth throughout the years.

Norms-based screening allows investors to assess the degree to which a company respects ESG issues by adhering to global norms on environmental protection, human rights and labour standards.

Engagement and voting is a very popular strategy closely linked to fiduciary duty. Shareholders are stewards of assets who are accountable to their beneficiaries for how they manage those assets.

ESG integration consists to the systematic and explicit inclusion of ESG risks and opportunities by asset managers in investment analysis.

Best-in-class or positive screening consists in choosing those companies that have the best ESG score in a particular sector.

Sustainability themed is a strategy including a variety of ESG-related themes. Investors can choose specific ESG areas of investments and build a specialised portfolio of related securities

Impact investing refers to **i**nvestments into companies and funds with the intention of generating measurable social and environmental impact alongside a financial return.

[127] See, e.g. Bauer et al. (2005); Galema et al. (2008); Orlitzky (2013), Melas et al. (2017).

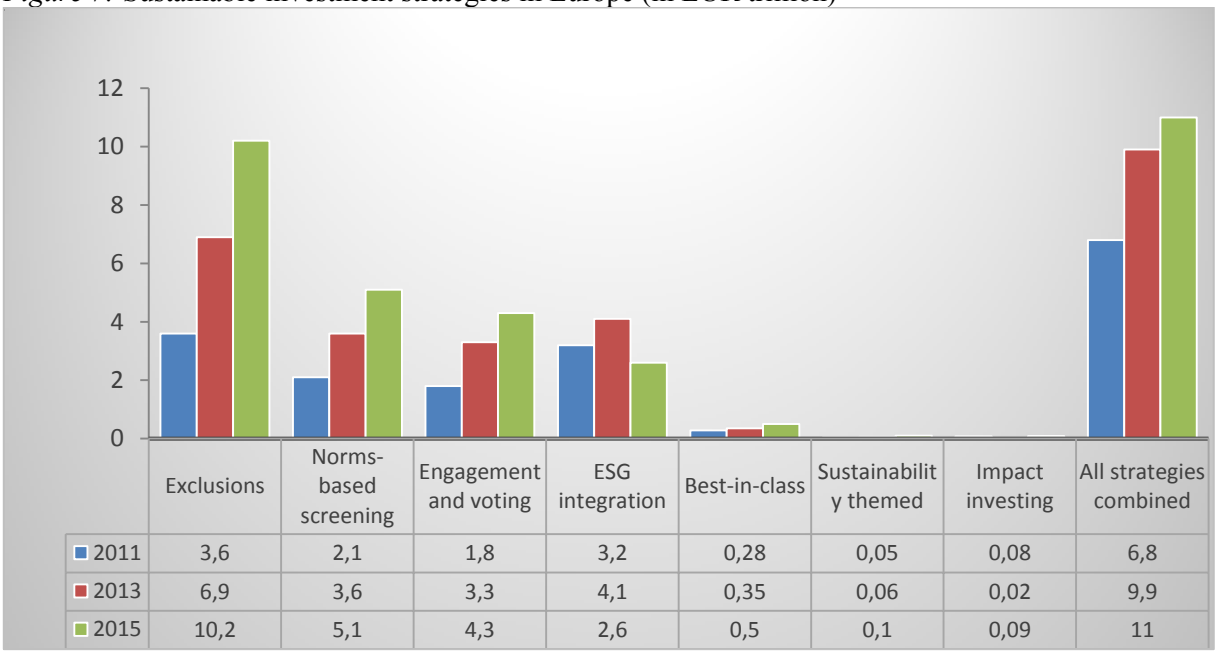
[128] The definitional ambiguity of the sustainable investment concepts mirrors the discussion on the definition of SRI. For a discussion of the latter, see Woods and Urwin (2012). As a result, one should be careful to directly compare data from different sources as they might use only comparable and not exactly identical definitions of sustainable concepts.

[129] Please note that since each source uses its own definition and scope of research, the information is used not to compare but to provide indications with respect to the growth of sustainable investment.

[130] EuroSIF (2016) covers 13 distinct markets. In total, 278 asset managers and asset owners with combined assets under management of $20 trillion participated in the survey.

sustainable investment strategies represented 51% of total European assets under management (AUM) compared to 56% in 2013 and 47.5% in 2011 (see Figure 2). Overall figures indicate that the total amount of assets based on sustainable investment strategies have increased to approximately EUR 11 trillion (see Figure 7). Institutional investors mainly drive these developments. As per the latest figures dated 2015[131], institutional investors hold 77.93% of sustainable assets. It is interesting to note the relative increase of retail assets, which grew from 5.90% in 2011 to 22.07% in 2015 suggesting their interest towards sustainable investments (EuroSIF 2016).

Figure 7: Sustainable investment strategies in Europe (in EUR trillion)



	Exclusions	Norms-based screening	Engagement and voting	ESG integration	Best-in-class	Sustainability themed	Impact investing	All strategies combined
2011	3,6	2,1	1,8	3,2	0,28	0,05	0,08	6,8
2013	6,9	3,6	3,3	4,1	0,35	0,06	0,02	9,9
2015	10,2	5,1	4,3	2,6	0,5	0,1	0,09	11

Source: European Commission analysis based on EuroSIF data

The European **sustainable investment fund market** has also continued to grow between 2010 and 2016 as shown in a study conducted by KPMG (2017). While in 2010 there were 1 503 funds managing EUR 251 billion, in 2016 the number of funds increased to 2 413 with EUR 476 billion of AUM. The amount of sustainable AUM have registered the largest growth between 2014 and 2016 with an increase of 26.6% (see Figure 9). Among the 2 413 funds registered in 2016, 70% were ESG cross-sectoral funds. Environmental funds amounted to 17% of total sustainable AUM and social funds to 8%.[132]

According to Morningstar, which assigns sustainability ratings to funds, 155 funds have a sustainability rating above average (see Table 32).[133] Among those 13 falls under the category of low-carbon funds with a total AUM of EUR 2.44 billion.

[131] These figures comprise a considerable heterogeneity among the EU member states regarding retail investor involvement. The growth at retail investors is mainly due to the launch of new products by asset managers and the increased focus on private clients such as High Net Worth Individuals.
[132] These statistics focuses essentially on mutual funds domiciled in Europe. It does not address pension fund assets, segregated managed accounts or insurance company assets.
[133] Filtered using the Morningstar Sustainability Rating: 4 (above average) and 5 (high).

Table 32: European sustainable investment funds by domicile

Domiciliation	*Number of funds*	*Funds size (EUR billion)*
Austria	13	0.95
Belgium	5	1.25
France	19	6.41
Germany	18	4.71
Ireland	14	6.38
Luxembourg	85	20.76
United Kingdom	1	0.07
Grand Total	**155**	**40.52**

Source: European Commission analysis based on Morningstar (2018)

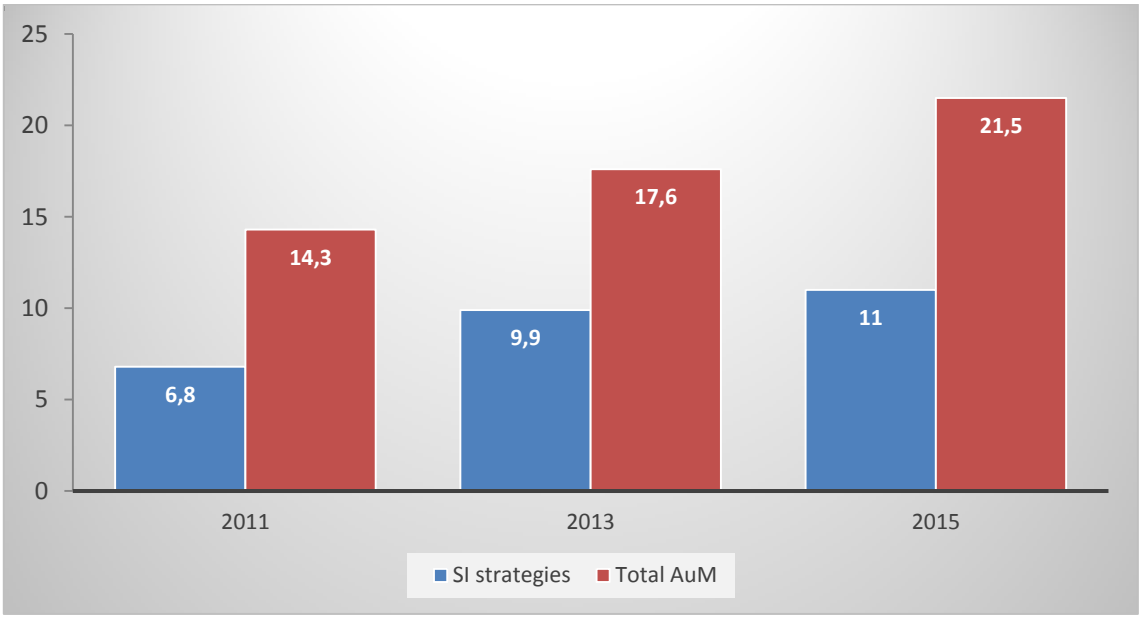
At global level, the initiative on the **Principles for Responsible Investment (PRI)** has registered a constant growth of signatories since its launch in 2006. The latest PRI annual report (2017) refers to 1 713 signatories globally. Of those signatories, 929 are in Europe (PRI, 2018a). In 2014, there were 814 signatories, 226 of whom were asset owners and 588 were asset managers (PRI, 2014). Committing to the PRI principles implies, among other things, to incorporate ESG issues into investment analysis and decision-making processes and to seek appropriate disclosure on ESG issues by the entities in which signatories invest.

Finally, according to a global survey of 461 asset owners and asset managers, 174 of which were European, 46% of asset owners indicated that they plan to have 50% or more of their investments in ESG funds. Moreover, 54% of asset managers plan to market 50% or more of their funds as ESG funds (BNP Paribas, 2017).[134]

[134] The survey was conducted among 461 asset owners and asset managers at global level, 174 of which were from the European financial industry.

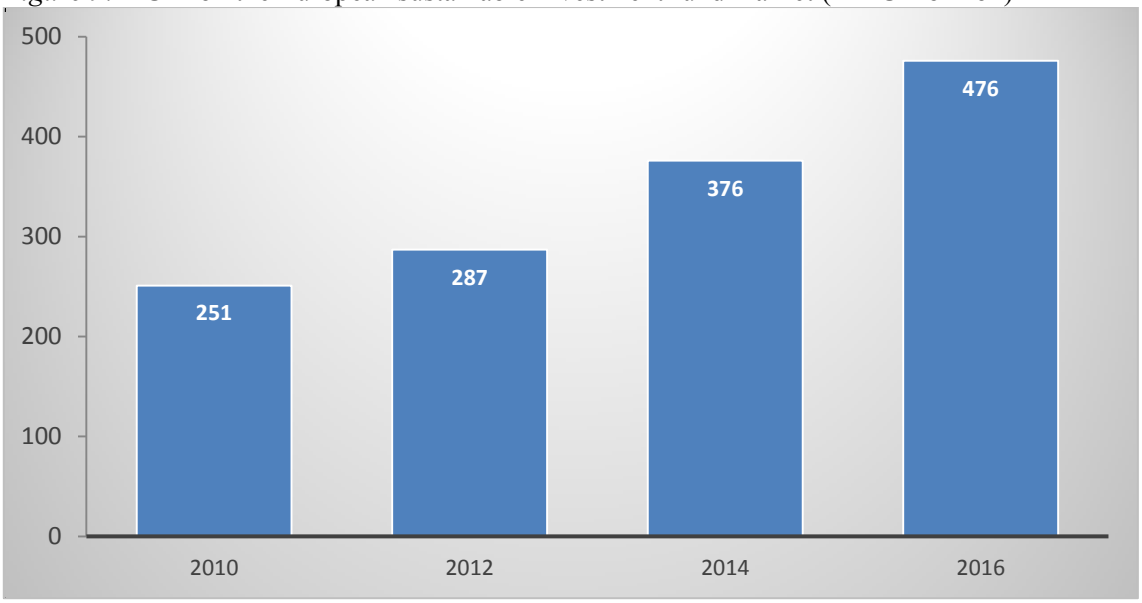
Key figures

Figure 8: Sustainable investment strategies out of total AUM in Europe (in EUR trillion)



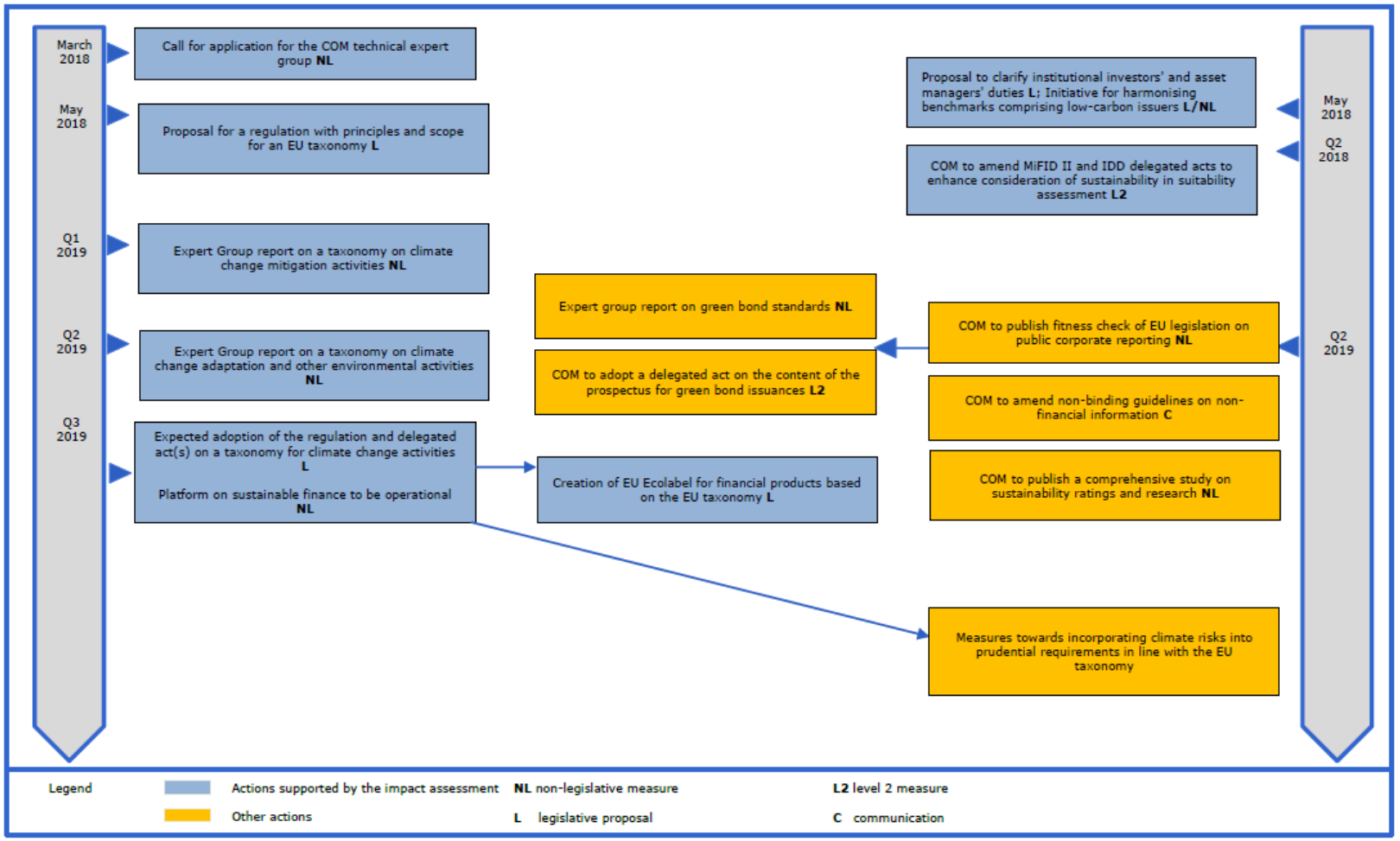
Source: European Commission analysis based on EUROSIF and EFAMA data

Figure 9: AUM on the European sustainable investment fund market (in EUR billion)



Source: KPMG (2017)

ANNEX 5: IMPLEMENTATION TIMELINE



ANNEX 6: WHY RELEVANT ENTITIES MIGHT NOT CONSIDER ESG FACTORS

This annex provides a short overview of the determinants of the lack of ESG consideration as part of their duties towards investors/beneficiaries based on views expressed by stakeholders in public consultations and observations from related literature. The main determinants are related to the (i) possible heterogeneity of beneficiaries ESG preferences'; (ii) reliability and comparability of ESG information; (iii) a lack of experience and ESG skills among relevant entities; (iv) the impact on costs and investment performance; (v) a lack of clarity and coherence regarding the consideration of ESG factors as part of duties in the investments and advisory process. The last issue is discussed in Section 2.1.2.

(i) Possible heterogeneity of beneficiaries' ESG preferences

Investors' duties require that the preferences of beneficiaries are taken into consideration. If there is a clear consensus, this is straightforward to implement. A priori, it is less obvious that all beneficiaries share the same view about ESG issues, as ESG preferences are rooted in deeply contested moral dilemmas for which there is no established ethical consensus (Richardson, 2012). Hence, without any further legal guidance, it might be difficult for trustees to decide to what extent ESG integration is in beneficiaries' best interest.

In line with this, relevant entities have had a tendency to interpret their duties narrowly, although this belief seems to be evolving. According to the 2016 EuroSIF survey of 287 EU asset managers and asset owners (representing a market coverage of 81%), the narrow interpretation of investors' duties is the main deterrent for asset managers and institutional investors to incorporate ESG criteria.

(ii) Reliability and comparability of ESG information

More reliable and comparable ESG information could further help to integrate ESG factors. In the public consultation (EC 2017b), respondents from the investment industry view the issues related to data/research, sustainability methodology & metrics as key problems (over 60% of respondents marked them as important or very important). Although there are several commercial initiatives available on the market, their reliability and comparability is not assured. These concerns are rooted in the more fundamental issue of what can be considered a sustainable economic activity and the extent to which non-financial information at the firm level is available in order to construct relevant research and metrics. These elements can be considered as a necessary input to later develop reliable and comparable ESG data in the information production chain. Given the lack of a generally accepted classification of what constitutes a sustainable economic activity, it becomes difficult for relevant entities to tailor their investment process towards a more ESG-inclusive approach. In this respect, a vast majority of respondents to the public consultation (EC 2016b) cited the absence of a standardised framework for ESG reporting by companies as a central problem. Some also noted that this has led to the coexistence of different competing non-binding standards on what is a sustainable economic activity, a situation that increases the complexity and the costs of information gathering and processing.

(iii) Lack of experience and ESG skills among institutional investors and asset managers

Lack of experience is also indicated to be important in the public consultation (EC 2017b), with over 60% respondents from the investment industry marking it as being important or very important). This issue is likely to be related to the previous one. To the extent that reliable data is unavailable, the relevant entities will be less inclined to integrate ESG considerations. Along the same lines, the more opaque the information environment, the more important the own expertise becomes.

(iv) Impact on costs and risk-adjusted performance.

The views on the effect on risk-adjusted performance are more controversial. Although the subject has obtained considerable attention in the academic literature, studies have mostly focussed on the performance of Sustainable Responsible Investment (SRI) portfolio (compared to the effect of ESG integration).[135] Brièrea, Peillex and Ureche-Rangau (2014) decompose the obtained performance in order to assess the contributions of SRI screening compared with the other traditional sources of financial performance, such as market movement, asset allocation choices and active management. SRI screening does help explaining the variability in mutual fund performance, alongside asset allocation and active management, but, evidently, it is not the sole driver of performance.

Note that SRI[136] mutual funds do not hold, on average, more socially responsible investments than conventional funds do (Utz and Wimmer 2014). This finding raises questions on whether the link between the social and the financial performance should be best studies by looking at packaged SRI products. Halbritter and Dorfleitner (2015) argue that ESG ratings allow for a more appropriate evaluation: they provide a direct performance measure at company level and conclude that portfolios that include firms with high ratings do not outperform others.

Market participants appear also to be divided about the possible effect: in the public consultation (EC, 2017b), 40% of respondents from the industry considered the 'lack of impact on asset performance' to be (very)/important, while 33% considered this to be not or slightly important.

Finally, the benefits of ESG integration should outweigh its costs. The EuroSIF (2016) survey concluded that market participants could be induced to apply a narrow definition of investors' duty as they feel that the cost of considering ESG factors could outweigh the benefits to the clients in terms of improved returns and/or reduced risks.

[135] See, for instance, the strand of literature that examines the performance of SRI mutual funds. SRI funds and conventional mutual funds perform generally similar (Statman (2000); Bauer, Koedijk, and Otten (2005); Bello (2005), Kreander, Gray, Power, and Sinclair (2005), Renneboog, Horst and Zhang (2008); Utz and Wimmer (2014)). Therefore, the prevailing notion is that considering sustainability factors in the investment decision does not put any extra constraint on the ability to generate risk-adjusted returns.

[136] It should be noted that there seems to be no consensus on what the term SRI exactly means for investors (Berry and Junkus (2013)). Many academic studies focus on the impact of SRI on financial performance, rather than explicating what is covered by the exact meaning of SRI.

ANNEX 7: OVERVIEW OF SUSTAINABILITY-RELATED INITIATIVES

There are different ways to define Sustainable Responsible Investments (SRI). Some, like the European Sustainable Investment Forum (EuroSIF), include both ESG investments and SRI-focused funds under the Responsible Investment umbrella. According to EuroSIF, this approach has evolved from a risk management focus (typically linked to investment exclusions of specific companies and sectors) to one that seeks opportunities for the creation of long-term value for business and society. Others focus solely on ESG investments.

There appears to be no homogenous market for SRI in Europe. The cultural and historical diversity between the European Member States influences what investors consider as Sustainable Responsible Investments (EuroSIF, 2012). In particular, no consensus on a unified definition of SRI exits within Europe, regardless of whether that definition focuses on:

- the processes used,
- the societal outcomes sought or
- the depth and quality of ESG analysis applied.

The tables below give an overview of legislative and market-led initiatives within the SRI framework.

Table 33: Legislative initiatives within the SRI framework

Country	Initiative
Austria	- Since 2005, there is an obligation for pension funds to take ESG criteria into account; it does not apply to pension funds that do not consider ESG issues. - The Austrian Society for Environment and Technology (ÖGUT) awards severance-pay funds and company pension funds sustainability certification. - Umweltzichen is a state-run environmental label for all kinds of products including financial ones. Criteria include exclusion and social and ecological standards.
Belgium	- Legislation in place prohibiting asset managers investing in weapons banned by international conventions since 2007. - A Supplementary Pensions Law mandates some form of ESG disclosure for these funds (2003). - Mutual funds are obliged to clarify to what extent they are considering social, ethical, and environmental factors in the implementation of their investment policy (2012).
Denmark	- Since 2010, a statutory obligation for investors to inform on SRI in general in their annual accounts. - Follow-up soft laws government initiative to extend transparency obligation to include specific SRI policies on government bonds/
Finland	- Corporate Social Responsibility (CSR) guidance for wholly and partly state-owned companies, in order to make sure that CSR is at the core of state-owned companies and that they contribute to sustainable development (2016).
France	- Interpretative statement of the prohibition on assistance specifies the banning of investment in cluster munitions.

	- French listed companies are required to publish information on their environmental and social impacts in their annual report (2001). - SRI has been actively promoted within Employee Savings Plans (ESPs) through the "Comité Intersyndical de l'Epargne Salariale" (CIES- Inter-union committee for employee savings) 'CIES' committee, which grants a Label to the main SRI ESPs (2002). - Obligation for ESPs to include at least one 'fonds solidaire'. These typical French funds include 10% of impact investments and 90% of equity or bonds that are usually managed under SRI approaches (2008). - Article 225 of the 'Grenelle II de l'environnement' Law progressively extends the ESG reporting requirement to SMEs and unlisted companies (2012). - Article 224 of the 'Grenelle II de l'environnement' Law requires fund managers to describe how the take into account ESG criteria in their investment policy and which funds are concerned on their website and in their annual report (2012). - Article 173 of the Energy Transition Law requiring asset owners and asset managers to disclose information on their management of climate-related risks, and more broadly, on the integration of ESG parameters in their investment policies (2015). - The Minister of Finance launched a SRI label (2015). - The Ministry of Environment launch the Energy and Ecological Transition for Climate label (TEEC). The TEEC label's methodological framework is based on the Climate Bond Initiative taxonomy.
Germany	- Obligation to report on ethical, social, and ecological criteria taken into account in the use of investment in savings plans, since 2001 for pension funds and extended to pension institutions as well as direct insurance in 2005. The pension and insurance companies are not bound to a sustainable investment policy; only required to report. - A Renewable Energies Act offers a legal framework or incentivise investment in renewable energies (2000). This act was reformed reducing the fixed compensation rate paid to operators of plants generating electricity (2014). - The German Council for Sustainable Development (NRE) adopted a sustainability code in 2011 *and plans to introduce it as a basis for the assessment of the performance of financial products*. - Regulation with respect to Corporate Social Responsibility (CSR) requiring large asset management companies to report on non-financial performance criteria such as environmental or employee issues in their annual reports.
Italy	- Law ratifying the Oslo Convention in 2011, article 95 is the legislative framework about investments related to cluster munitions. - Legislative Decree 252/2005 obliges pension funds to include in their annual report and their communication to the investors whether and to what extent ESG criteria are adopted in the management of assets. - Consob Regulation n. 16190/2007, the Financial Services Authority, further obliges disclosure for all financial products labelled as

	'ethical' or 'socially responsible'. - Regulation n. 35/2010 enforced by Ivsap, the Insurance Services Authority, obliges a similar disclosure for insurance products. - Covip, the Pension Authority, enforces the obligation to communicate (if any) ethical, environmental and social criteria in the statement of investment principles.
Ireland	- Act ratifying the Cluster Munition Convention (CCM) on specified investment ban in 2008.
Luxembourg	- Ratified the Convention on Cluster munition in 2009 containing an investment ban.
Netherlands	- Ratified the CCM in 2011. According to the amended Market Abuse Decree, Dutch institutional investors and funds cannot invest in producers of cluster munitions (2013).
Spain	- Sustainable Economy Law (Law 2/2011) calls for pension funds to disclose on an annual basis whether or not they are social, environmental or governance criteria in their investment approach. - Law calling on employer-sponsored occupational pension plans to disclose whether they incorporate the analysis of ESG risks as part of their investment selection process.
United Kingdom	- The Occupational Pension Schemes (investment) Regulations 2005 – Regulation 2(3) requires since 2000 occupational pension schemes to disclose their responsible investment policy in their 'statement of investment principles'. This requirement has been extended to 'stakeholder' pension products and to charity investors. - "Charities and investment matters" (CC14) gives guidance since 2011 across the spectrum of potential investment approaches, including ESG risks. - Introduction of a binding vote on executive pay and mandatory reporting on greenhouse gas emissions by listed companies (2012). - From 2012, employers will be required to enrol employees automatically into a qualifying pension funds. NEST, a workplace pension scheme is one the options. NEST's seeks to apply responsible investment principles across all its assets, as well as offer an ethical fund. - The Pensions Regulator (TPR) endorses a legal interpretation of fiduciary duty proposed by the Law Commission that 'where [trustees] think ESG issues are financially significant you should take these into account' (2016).

Source: European Commission analysis based on EuroSIF European SRI Study 2012, 2014 and 2016.

Table 34: Market-led initiatives within the SRI framework

Country	Initiative
Belgium	- The Belgian Asset Management Association (BEAMA) developed an SRI methodology. - The BEAMA SRI methodology, elaborated in 2012 by the Belgian Financial Sector Federation (Febelfin) mentions disclosure rules, the frameworks and criteria the fund manager has to comply with, it also encompasses saving accounts and loans. - BEAMA and Febelfin harmonised their definition of sustainable financial products, including investments, marketed to retail clients (2013).
France	- The Novethic SRI label has as objective to promote enhanced transparency and practices of SRI funds (launched in 2009). - AFEP-MEDEF Governance code introduces "Say on Pay" (2013). - The CIES label delivered by Inter-Union Employees Savings Fund Committee ensuring that the range of funds proposed as part of employee savings scheme are taking into account ESG criteria in their asset management.
Germany	- German Association for Investment and Asset Management (BVI) published its "Guidelines for Responsible Investment" (2012). - Frankfurt-Hohenheim Guideline consists of over 800 criteria (1997). - German Council for Sustainable Development launched a sustainability code in order to make large companies' sustainability performance more transparent and comparable (2011).
Italy	- The Italian Sustainable and Responsible Investment Charter is signed by the Italian Banking Association, the Association of Italian Insurers, the Italian Investment Management Association and their Federation in 2012. The Charter highlights the need to acknowledge the relevance of ESG issues within an investment strategy. It focuses on transparency and places attention the long-term dimension of investment strategies. - Forum per la Finanza Sostenibile (FFS) creates a working group on SRI definition to discuss the technical aspects of existing SRI strategies, identify points of convergence and establish a widely accepted definition.
Netherlands	- The Pension Federation (de Pensioen Federatie) published a handbook regarding responsible investment. - The governance code for pension funds. - The Association of Insurers (het Verbond van Verzekeraars) introduced a Responsible Investment Code requiring members to take a number of initiatives to make their investments more responsible (2012). - Publication of a governance code for pension funds (in line with the already existing codes for banks and insurers) (2013). - The Fair Insurance Guide, the insurance version of the Fair Pension Guide. The guide compares the ten most important providers of life insurance on the Dutch market on their sustainability (2013).
Spain	- INVERCO (Association of Collective Investment Institutions and

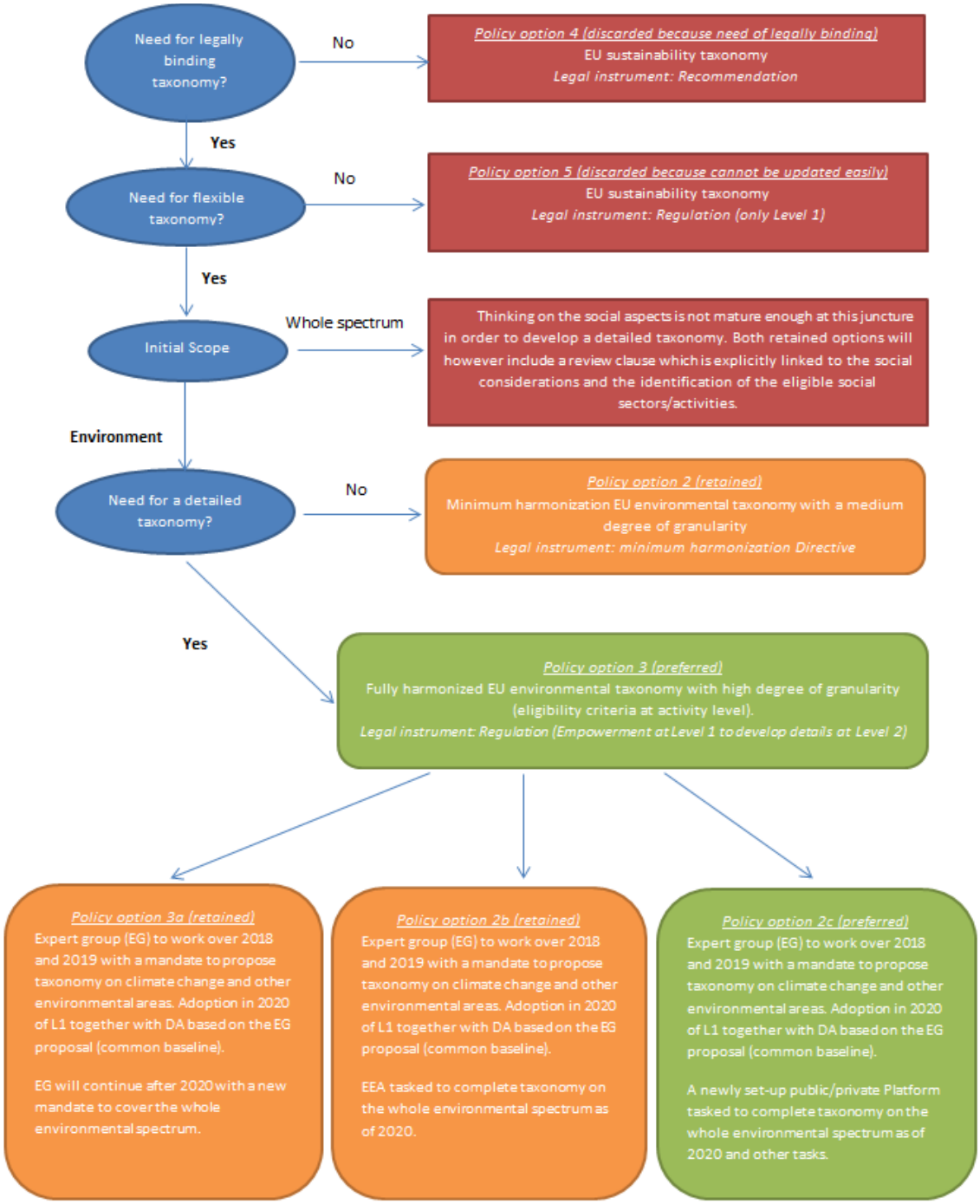
	Pension funds) published its voluntary internal regulation about ESG applications (2014).
United Kingdom	- The Social Stock Exchange is a global venue for finding publicly tradable securities in social-impact businesses (2013).
International	- The impact Reporting and Investment Standards (IRIS) is a catalogue of standardised metrics that can be used to measure and describe the social, environmental, and financial performance of social organisation and businesses (2009). It is widely used by impact investors in the US and also in the UK, Germany and the Netherlands. - Global Impact Investing Ratings System (GIIRS) is a system for assessing the social and environmental impact of social companies and social funds using a rating and analytical approach. GIIRS is popular in the US and the Netherlands.

Source: European Commission analysis based on EuroSIF European SRI Study 2012, 2014 and 2016

ANNEX 8: TAXONOMY

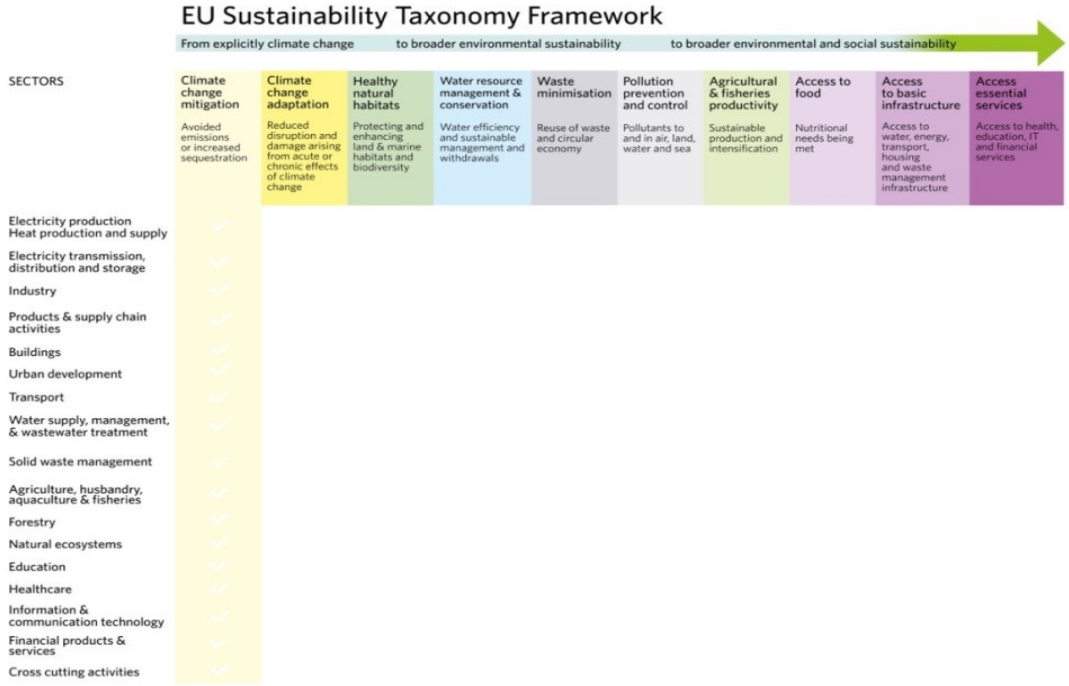
I. Policy option decision tree

*Figure 10: P*olicy option decision tree



II. A possible example of a sustainability taxonomy framework (as per HLEG final report)

Figure 11: HLEG EU sustainability taxonomy framework



The taxonomy framework above proposed by the HLEG encompasses both environmental and social sustainability goals.

III. Illustrative examples for the policy options

Example for Option 2

Table 35: Illustrative examples of Taxonomy – Option 2

EU Environmental objective (column)	**Macro sector (row)**	**Sector**	**Sub-sector**
Climate change mitigation	Electricity production	Renewable energy power plants	Solar photovoltaic
Climate change mitigation	Electricity production	Renewable energy power plants	Hydropower plant
Climate change mitigation	Transport	Infrastructure for low carbon	Charging stations and other equipment for electric vehicles
Climate change mitigation	Transport	Railway	Railway and urban mass transit infrastructure
Waste minimisation	Solid waste management	Recycling	Recycling facilities for e.g. glass, metal, paper and other recycling facilities
Healthy natural	Restoration and	Natural ecosystems	Conservation,

habitats	Conservation		restoration and enhancement of all natural land

Example for Option 3

To give some concrete illustrations to make the reader better understand what screening issues and criteria might look like (and without prejudging the final outcome), the matrix provided as an example under option 2 (see above) will be further populated as follows (sub-sectors included for reference) for Option 3:

Table 36: Illustrative examples of Taxonomy – Option 3

Sub-sector	**Screening issues**	**Screening criteria**
Solar photovoltaic	Automatically eligible	Automatically eligible
Hydropower plant	Water shortage due to evaporation, flow shortage endangering animals and plants; habitat fragmentation/ loss of land; others. Demonstrate substantial Green House Gas emissions savings, e.g. by avoiding substantial methane emissions from the anaerobic decomposition of biomass in reservoirs.	Land use change < xx hectares. Not in areas of high biodiversity (cf. UN Convention on Biological Diversity). No substantial negative impact on protected species (Y/N) Primary Screening Metric: Release of GHG emissions < XX gCO2e/kWh Secondary Screening Metric: Power density > XX W/m3
Charging stations and other equipment for electric vehicles	Automatically eligible	Automatically eligible
Railway and urban mass transit infrastructure	Integration in urban development planning leading to a reduction in the use of passenger cars. Inclusions of travel demand-management measures dedicated to reducing pollutant emissions. Impact on modal shift of freight and/or passenger transport from road to rail.	Land use change < xx hectares. Not in areas of high biodiversity (cf. UN Convention on Biological Diversity). No substantial negative impact on protected species (Y/N) Primary Screening Metric: Release of GHG emissions < XX gCO2e/kWh Secondary Screening Metric: Power density > XX W/m3
Recycling facilities for e.g. glass, metal, paper and other recycling facilities	Respecting waste hierarchy Demonstrate substantial lifecycle GHG emissions reductions through gains in	Quantitative: Recovery rate of materials > XX% Qualitative: Investment goes beyond the state of the art , i.e.

	resource and energy efficiency and by avoiding the GHG emissions associated with the extraction and processing of natural resources, e.g. recycling of steel, aluminium, glass, plastic, paper.	prevention, re-use, recycling or recovery or uses conventional technologies in an innovative manner

In the taxonomy developed under Option 3, it would be possible to include those sectors and sub-sectors whose contribution to a certain environmental goal is at *prima facie* not obvious, but where individual activities/projects could have a measurable and positive impact. For example, certain activities in building sector (used as example under Option 2 for excluded sectors from the taxonomy), could be included in the taxonomy developed under Option 3 if they meet certain screening issues, criteria and metrics (see example below).

Table 37: Example showing difference between Option 2 and Option 3 Taxonomy

Activity	Screening issues	Screening criteria
Buildings retrofit	*Demonstrate material improvement, eg. energy performance, GHG emissions savings.*	*E.g. compliance with EPBD standards, certain level of energy performance, GHG savings*

IV. Governance structure for Option 3

Short-term governance structure (baseline)

To define the sustainability criteria of the EU taxonomy in delegated acts (leading to a complete and detailed list of eligible "green"/sustainable activities), all the considered options for the governance structure below envisage the set-up of a **short/medium-term governance structure.** The reason for this is that there is the need to leverage on the progress already achieved on climate change and mature environmental aspects, and to advance on other environmental objectives before the regulation enters into force. As such, all the sub-options considered for the governance structure would include the following baseline:

- The Commission sets up a technical expert group by Q2 2018 through an open process (public call already published), which would be tasked to elaborate a taxonomy of eligible climate change mitigation and mature environmental (e.g. waste treatment) activities by Q1 2019. The work of the technical group will expand further to climate change adaptation and other environmental areas later by Q2 2019, and in any case before adoption of Level 1 (possibly 2020). The European Environment Agency (EEA) and the European Supervisory Authorities (ESAs) are expected to be part of this group.
- The Commission launches by Q3 2018 a public consultation on a draft framework for an environmental taxonomy, the responses of which will feed into the technical expert group's work.
- In order to keep the co-legislators fully informed on the progress and the direction

of travel taken by the technical expert group in the development of the environmental taxonomy, the Commission will report at least twice a year to:

- EU Member States via a configuration of existing Member State expert groups or a new expert group comprising representatives from national finance and environment ministries;
- ECON and ENVI European Parliament Committees.

The feedback gathered in these meetings will be channelled to and inform the work of the technical expert group[137].

- Relevant parts of the climate and environmental taxonomies will be presented to the Commission in the form of reports prepared by the technical expert group, with support of a Commission secretariat.

Once the regulation is in place – proposal for a regulation on an environmental taxonomy adopted in May 2018 empowering the Commission to develop the sustainability criteria through delegated acts – the Commission will adopt the delegated acts based on the work provided by the technical expert group. The proposed taxonomy will be subject to a public consultation and impact assessment by the Commission.

Budgetary implications - The technical expert group will be composed of 30 experts representing the public and private sectors, as well as NGOs and academic institutions. It is expected to meet up to 15 times over the period June 2018 – end 2019. The costs of the private experts for participation in these meetings will be reimbursed from the services budget as will be the travel expenses of the public sector experts (administrative expenditure). There will be no need for additional staff from the Commission, the EEA and the ESAs. Based on current information the total expenditure (administrative and operational) is projected to be around EUR 337 500[138].

As the initial mandate for the Commission technical expert group finishes by the end of 2019, a **long-term governance structure** is needed to update the EU taxonomy and further develop it for other environmental areas and possibly even social areas. For this long-term governance structure, three different options were considered:

a) Continuation of the technical expert group by extending its initial mandate;
b) Mandating the European Environment Agency (EEA);
c) Setting up of a new public-private platform steered by the Commission.

A more detailed description of these options follows below.

Option 3a: Continuation of the technical expert group

The life span of the Commission technical expert group could be extended to 2021 – or possibly beyond if necessary - in order to develop an EU taxonomy for the outstanding environmental activities. Depending on the achievements until 2019 (initial mandate), a new broader mandate to cover all (other) relevant parts of sustainability could be framed. In essence, the approach for the short/ medium term would continue for at least two more years, effectively putting in place a Commission technical expert group with a 2+2 year

[137] See also the safeguards section below.
[138] Based on the assumption of maximum 15 meetings and expenses of EUR 800 per private sector expert and EUR 650 per public sector expert per meeting.

mandate from 2018 until 2021.

The new, broader mandate for the Commission technical expert group could also include a first update/revision of the already developed parts of the climate and environmental taxonomies, if necessary. The Commission would be responsible for reflecting such necessary revisions in the legal framework (i.e. Level 2), if possible in the given timeframe.

Budgetary implications - The technical expert group would be composed of 20 experts representing the public and private sectors, as well as NGOs and academic institutions. It is expected to meet up to 20 times over the period 2020 - 2021. The costs of the private sector experts for participation in these meetings will be reimbursed from the global envelope of the Commission as will be the travel expenses of the public sector experts (administrative expenditure). There would be no need for additional Commission staff, but 1 FTE will be needed for the EEA and 0.5 FTE for each of the three ESAs (2.5 FTEs in total). Based on current information the total expenditure (administrative and operational) over the two-year period is projected to be around EUR 590 000.

Under this option, the Commission – like under the short/medium-term governance structure – would continue to be responsible for reporting to EU Member States and the European Parliament in 2020/2021.

Option 3b): Mandating the European Environment Agency (EEA)

Under this option, the task of further developing, monitoring and updating an EU taxonomy for environmental activities/assets would be outsourced to the EEA, in close cooperation with the Commission.

The EEA would be the anchor of this long-term governance structure coordinating the further development of the EU environmental taxonomy.[139] To complete its tasks, the EEA would involve the ESAs.[140] Other EU agencies and the EIB would be associated (as contributors or observers). To be able to further develop and monitor the implementation of an EU environmental taxonomy, it would conduct the necessary public consultation before providing its advice to the Commission, as well as conduct workshops as needed to deliver on its tasks.

It is important to note that the founding Regulation of the EEA[141] does not envisage such tasks as it does not contain provisions of direct relevance. These tasks cannot be performed by the EEA with current resources and skill profiles. Synergies with already existing tasks within the EEA cannot be envisaged given the specific nature of the tasks required.

[139] In case of an EU taxonomy for sustainable activities which comprises the social dimension, other relevant EU/Commission agencies would need to cooperate with the EEA, or the EEA's mandate would need to be amended. Currently, the EEA's mandate focuses on the environmental dimension of EU policies while taking the socioeconomic dimension into account (see Art. 3.2 of the EEA Regulation, footnote 142).

[140] The involvement of the ESAs is in line with the recent proposal of the Commission to enlarge their mandate to take into account ESG factors in their tasks and promote the integration of ESG factors in financial legislation.

[141] Regulation (EC) No 401/2009 of the European Parliament and of the Council of 23 April 2009 on the European Environment Agency and the European Environment Information and Observation Network (Codified version)

Budgetary implications - The administrative expenditure for this option relates to workshops and conferences. The operational expenditure comprises maintenance costs for a new IT platform, research budget and human resources' costs. In terms of FTEs, the EEA would need 7 additional posts, while the ESAs' work would be estimated at 0.5 FTE for each Authority. The Commission would need 1.5 FTEs. This would make for a total of 10 FTEs. Based on current information, the annual total expenditure (administrative and operational) is projected to be close to EUR 2.3 million[142] per year.

With regards to the involvement of EU Member States and the European Parliament in the process of developing an EU environmental taxonomy, the EEA's Management Board already consists of one representative of each Member States and two representatives designated by the European Parliament. The Commission also designates two representatives to the EEA's Management Board.

Option 3c): Setting up of a new public-private platform steered by the Commission

The Commission would create a new dedicated public-private platform on sustainable finance. This Platform would be set up as a Commission Expert Group similar to the format used for the set-up of a multi-stakeholder platform on the implementation of the Sustainable Development Goals and supervised by a Commission Inter-Service Steering Group.

Its core function would be to further develop and adjust the EU environmental taxonomy. In addition, if the review of the Regulation on taxonomy concludes that the EU taxonomy should be extended to social aspects, this Platform would be tasked to develop the missing parts in the EU sustainability taxonomy (to be presented to the Commission in the form of reports).

The Platform's additional tasks would include the promotion and monitoring of capital flows towards environmental and sustainable investments, advice to the Commission and EU Member States on their sustainable finance strategies, and fostering long-termism and transparency. It is expected that the core task of the Platform will gradually shift from developing and completing the EU taxonomy to the role of an advisory and observatory on sustainable finance over time.

Consequently, the Platform would contain two separate work streams. One work stream will be dedicated to the EU taxonomy and will be comprised of public/private representatives/experts[143]. The other work stream will be responsible for the other tasks foreseen and will also comprise public and private sector representatives.

The Platform would have a full-time Chairperson. The Chairperson would be in charge of coordinating the Platform's output and reporting to the Commission Inter-Service Steering Group. The Chairperson would also ensure involvement of EU Member States and the European Parliament through regular dialogue/ reporting.

[142] There will also be a one-off cost for the development of an IT platform for the first year of operations.
[143] Representatives from public sector bodies would include EEA, ESAs, EIB, Eurostat and other relevant agencies/ institutions. Private sector representatives/ experts would come financial institutions, academia, NGOs and other relevant stakeholders (including data providers/users).

A Commission Secretariat would support the work of the Chairperson and the public and private experts of the Platform. It would also ensure delivery of and consistency with Platform's mandate.

Budgetary implications - The Platform will be composed of 30 experts representing the public and private sectors, as well as NGOs and academic institutions. Each work stream is expected to meet up to 10 times a year. The costs of the private sector experts for participation in these meetings will be reimbursed as will be the travel expenses of the public sector experts (administrative expenditure) The operational expenditure comprises add-ins for an existing collaborative platform, research/study/survey budget and human resources' costs. In terms of FTEs, the EEA will need 2 additional posts while the ESAs' work is estimated at 1 FTE for each Authority. The Commission will need a total of 10 FTEs (including 1 FTE post to serve as the Platform Chairperson) to support the work streams and provide the secretariat. This makes for a total of 15 FTEs. Based on current information the total expenditure (administrative and operational) is projected to be around EUR 2.6 million per year, for a total of EUR 10.5 million over the period 2020-2023.

Table 38: Pros and Cons for sub-options on governance taxonomy for preferred policy option 3

	Pros	**Cons**
Option 3a	• Administrative simplicity as no new governance structure is needed (as the mandate of the technical expert group envisaged under the baseline will simply be extended). • No disruption of the work is expected given that the same experts as envisaged under the baseline will continue working on the taxonomy.	• Updating the environmental taxonomy would not be ensured under this option as the mandate of the technical expert group is only until 2021. • The possible extension of the taxonomy to social areas (as per the review clause in the Regulation) will be beyond the mandate of the technical expert group, requiring another extension of the mandate or a different expert group.
Option 3b	• Use of an already existing structure with expertise on environmental issues and proper governance arrangements. • Given that the taxonomy is mandated to an EU agency, the maintenance and update of the taxonomy is ensured.	• Development of an EU taxonomy which would require managing the involvement of a broad range of stakeholders deviates from the core agenda and expertise of the EEA. • Given the expertise of the EEA, the development of the taxonomy in social areas (as per the review clause in the Regulation) could likely not take place in this structure. • This option would also fail to enhance the awareness of financial market supervisory authorities of environmental risks, and their capacity to assess and manage those. • Not involving them may also mean lower take-up or less buy-in because the EEA does not benefit from the same level of credibility and authority as the ESAs among financial

		market participants.
Option 3c	• Well-structured governance set-up will ensure proper involvement of all relevant stakeholders. • Structure is future-proof, in the sense that it can easily accommodate updates to the EU taxonomy and possible extension to social areas. • Synergies can be obtained between the two work streams of the platform (which would benefit the final output of the taxonomy).	• The set-up of a permanent structure requires significant resources.

Despite being more expensive, **the preferred option is 3c, for the following reasons:**

- It allows involvement of both public and private stakeholders in the Platform and the pooling of environmental and financial markets expertise.
- The Platform approach allows the Commission to steer and supervise work and provide support through a permanent Secretariat. The Commission Secretariat would also support the Chairperson in his/her work.
- Establishing a full-time Chairperson would create a clear line of responsibility, internally to the two pillars of the Platform and vis-à-vis the Commission as well as to external parties (regular reporting to Co-legislators).
- Different tasks - on an EU taxonomy and for the observatory/ advisory function – could be integrated in the Platform approach.

V. Framing the development of the taxonomy at Level 2 (Option 3c)

Given the political importance of an EU taxonomy, the empowerment of the Commission to develop the details of taxonomy at level 2 will be properly framed. This framing will be achieved at three levels:

a) At the level of the Regulation

- The Regulation will provide for the development of an EU taxonomy related to six environmental objectives only; yet a review clause will provide for the possibility to broaden the scope of the taxonomy to pursue new objectives (going to social) - which will have to be agreed by the co-legislators.
- The Regulation will be as specific as possible as regards (i) the EU environmental objectives for which eligibility criteria will be defined at Level 2 and (ii) the principles for determining these criteria

b) At the level of the Delegated Act(s):

- Member States and European Parliament will benefit from the standard safeguards provided in the existing framework for the adoption of delegated acts

- For the preparation of a Delegated Act, the Commission will get input from stakeholders, including Member States experts and the Parliament (e.g. public consultation, workshops) and assess the impact of the proposed taxonomy as appropriate.

c) At the level of the platform put in place to provide the technical advice to the Commission for the development of the eligibility criteria:

- The Chair of the Platform will regularly (every three or six months) report to and seek the advice from Member States' and European Parliament's Committee(s) about the advancement of the work by the platform on the eligibility criteria.

VI. Examples of existing standards and labels

Figure 12: Examples of existing standards and labels

			Label TEEC	Luxflag Climate Finance	FNG Siegel	Nordic Swan Ecolabel	Austrian Ecolabel
Basics	Date of launch		01-12-2015	01-09-2016	01-05-2015	15-06-2017	01-01-2004
	Number of labeled funds		15 (~2Md€) [4 green bonds, 3 equity, 8 infras]	4 (450M€)	5 Environmental thematic funds (equity et green bonds) among ~50 applicants	13 (~3Md€) [All in equity: 8 focus on Swedan, 3 Global, 1 Frontier, 1 Energy]	90
	Time required to audit an application		4 to 6 weeks (depending on type of fund, size, etc.)	1 month	1-3 months	About 30 hours over a 6-9 week period. (Can be much longer depending on the fund companies eagerness & adaptability)	1-3 months (depending on the fund, and how fast they deliver the required documents)
	Legal basis		Secondary ("décret ministériel") & tertiary ("arrêté") legislation	None	None	None	None
	Eligibility criteria		UCITS / AIFM funds (At least 50% invested in Europe if non listed fund)	Any investment fund authorized by a EU Member State or be subject to supervision equivalent to that in EU Member States	UCITS funds or equivalent	Funds of all asset classes can be awarded the Nordic Swan Ecolabel, provided that they comply with the UCITS† regulations and are registered for distribution in one or more of the Nordic countries, and have no more than 50% of their assets based on non-corporate credits† such as government bonds. Index funds shall base a part of their application for the Nordic Swan Ecolabel on an index in which all relevant exclusion and inclusion criteria are included and preevaluated by Nordic Ecolabelling.	Investment products for which an application for the Eco-label has been filed have to be assigned to one of the categories described below: **Sustainable investment products** - ethics and ecology (SIP) invest in issues which, compared to other issues of the same business line, provide a better environmental or ethical-social performance (best in class). Positive and negative criteria can supplement this selection. Excluding certain sectors or activities is a means of emphasising the compliance with views and values of certain investor groups. **Investment products for topics** (TIP) - Climate, water, renewable energy & environmental technology (TF), invest in issues, characterised by above-average environmental compatibility which are selected by applying positive and negative criteria and/or the best-in-class principle, as well as in companies producing or selling products to remedy or prevent environmental damage. They are usually selected according to business lines complying with these principles. **Investment products for real estate** invest in real estate characterised by above-average environmental and social compatibility, which are selected by applying positive and negative criteria and/or the best-in-class principle.
	Governance	Who decides on the evolution of the labeling scheme?	A dedicated multi-stakeholder Committee chaired by the Ministry of Environment	LuxFLAG in conjuction with a dedicated multi-stakeholder industry working group led by the Association of Luxembourg Fund Industry (ALFI)	An independent multi-stakeholder expert committee with Auditor and FNG	The Nordic Ecolabelling Board, an independent external organisation.	Austrian Ecolabelling Board; Criteria documents are being developed in a standardized stakeholder process involving financial experts, environmental experts and activists and representatives of the civil society (social partners).
		Who grants the label?	Accreditated (by the National Accreditated Body COFRAC) auditors	LuxFlag Board upon the recommendations of the Eligibility Committee and LuxFLAG Secretariat	GNG, the operational labelling body of FNG, advised by an independent expert committee, who review the audit results	Nordic Swan Ecolabel	Austrian Ministry for Sustainability and Tourism
		Eligibility criteria	Fonds UCITS ou AIFM	Any investment fund authorized by a EU Member State or be subject to supervision equivalent to that in EU Member States	UCITS funds or equivalent	UCITS funds	UCITS funds
		Labelling costs	None	3,000 EUR (once labelled)	3,000-3,5000 EUR (all in: application, promotion, communication, Eurosif transp. code)	To generalize, an application fee of 3,000 EUR and an annual license fee of 0.0015% of AUM in the fund. Please follow link for all details	This is divided into a one-time application fee (from 150 to a maximum of 600 euros also for several funds) and an annual fee, which is calculated according to the turnover from sale of fund shares and management fees in a contractual year (from 380 to maximum 2,420 euros, also for several funds - they are cumulated).
		Audit costs	Depending on auditor	0	Included into labelling costs	See above	Fees for independent auditors; the licencee chooses an accredited auditor and negotiate the terms directly with the auditor.
	Validity	Labelling period	1 year (renewable)	1 year (renewable)	1 year (renewable)	Same as the criteria document. Current criteria are valid until 2020-06-30. The criteria are updated every 3-5 years.	4 years
		Intermediate verification	Yes	Compliance verification after six months	At request by third party and ex-post via historic portfolio holdings	Annual	on a yearly basis
Labelling criteria	Green taxonomy		CBI based, however slightly adjusted to reflect national priorities	Common Principles for Climate Change Mitigation and Adaptation Finance Tracking (IDFC (International Development Finance Club] + MDBs)	CBI based	Modified version of GBP?	?

		Label TEEC	Luxflag Climate Finance	FNG Siegel	Nordic Swan Ecolabel	Austrian Ecolabel
	Exclusions	Strict for the entire fossil fuels and nuclear industry. For the sectors servicing the excluded sectors, turnover derived from these sectors < 33% of total turnover	Nuclear projects, Mining and power companies that derive more than 30% of income from thermal coal/oil exploration or base more than 30% of their operations on thermal coal/oil exploration... Other 'controversial' sectors/activities (large hydropower, mining, logging, fishing, biofuels, large geothermal plants...) unless they can strongly demonstrate that they are in line with generally accepted standards (World Commission on Dams, Gold Standard...) and/or that they apply robust environmental and social safeguards.	>90% of portfolio has to be ESG-screened Companies: >5% nuclear power >5% conventional weapons 0% controversial weapons Global Compact Principles Countries: •Human rights and democracy ("not free" acc. to Freedom House) •UN Convention on biological diversity (or equivalent like Kyoto or COP21) •Low corruption (bottom 40 acc. Transp.Intl.) •Infringement of nuclear arms treaty	Mandatory >5% extracting coal (thermal coal), natural gas, crude oil or uranium, >5% refining coal, natural gas, crude oil or uranium for fuel. >5% generate power from coal, natural gas, crude oil or uranium >5% conventional weapons >5% tobacco 0% controversial weapons 0% International norms and conventions: • ILO's fundamental principles. • Human rights • Severe environmental damage.• Gross corruption. 0% Government bonds – The fund shall not invest in government bonds issued by: • Countries that are subject to EU or UN financial sanctions. • Countries which have not ratified one or both of the following: The UN Convention on Biological Diversity. The Paris Agreement 0% Government bonds – ranked below the 70 best ranked countries in the currently valid Transparency International's Corruption Perceptions Index. Point score >5% GMO crops	**Exclusion criteria for enterprises:** Business segments ⍰ Nuclear energy: Production and suppliers of nuclear components ⍰ Armaments production and trade ⍰ Genetic engineering1 ⍰ Extraction of natural gas by means of fracking ⍰ Extraction of crude oil by fracking and from tar sand ⍰ Extraction of coal Business practices ⍰ Systematic violations of human rights and labour law *The exclusion and evaluation criteria must apply also to consolidated shares and must relate to at least 95% of the company's turnover .* **Exclusion criteria for government bonds/government-affiliated issuers:** Political and social standards ⍰ States violating fundamental rights concerning democracy and human rights ⍰ States where the death penalty is applied ⍰ States with particularly high military budgets Environmental standards ⍰ States without (strategic) objectives and/or measures to reduce greenhouse gases ⍰ States with expansive policy concerning the further development of nuclear energy **Exclusion criteria for real estate:** Investment policy, selection criteria as well as the survey, evaluation and selection process of the sustainable real estate must be designed in such a way that real estate (new building or already remediated) which does not comply with the basic criteria of the klima:aktiv building standards are excluded from an investment.
	Green allocation of portfolio	**Listed funds:** > 20% 'dark green' (+50% of turnover derived from green activities / < 25% (diversification pocket) / Remainder: 'light green' (between 10 & 50% of turnover derived from green activities) **Private equity funds:** +75% 'dark' green **Green bonds:** +75% green bonds (compliant with GBP) / 25% other bonds Trois poches pour les fonds cotés (> 20% green [50%+ CA] et <25% diversification)	Portfolio level: investments corresponding to 75% of total assets in investments related, with a clear and direct link, to mitigation and/or adaptation of climate change Investments in listed and non-listed entities must have at least 50% of their turnover generated from Climate Finance activities Investments in bonds must have at least 75% of total assets in green bonds compliant with the GBP/CBI or any other internationally recognised initiative	Quantitative comparative assessment of the minmum threshold and consolidated level (aggregated turnover) of green activities at portfolio level	Mandatory: More than 50% of the fund, measured in value of the fund, must be invested in holdings with strong ESG practices as identified in the ESG analysis. Point score: If the fund has a clearly defined objective and methodology for identifying, assessing and including holdings that promote the transition to an environmentally sustainable future, points can be awarded.	The fund has to have a defined objective and methodology for identifying, assessing and including holdings that promote the transition to an environmentally sustainable future, points can be awarded.
	Measurement of Green allocation of portfolio	On a monthly basis / Moderate or high insurance	At six months/alternatively as required at any point in time	During the audit	At application and in connection with the yearly on-site audit. We may ask for an update at any time.	During the audit and on a yearly basis for the duration of the contract.
	ESG criteria considerations	The fund has to demonstrate that it has put in place a strict surveillance/remedy mechanisms to avoid controversies for the entire portfoliio.	The Fund must provide evidence that ESG standards are incorporated in the investment process and applied to 100% of investment portfolio.	Assessment of the quality of the research and of the investment selection/exclusion process taken into account in the broader assessment scheme	The fund shall have clearly defined criteria used for rating/assessing and including holdings based on environmental, social and governance practices and performance.	The Fund must provide evidence that ESG standards are incorporated in the investment process and applied to 100% of investment portfolio.
	Impact reporting	The fund must have put in place a mechanism for measuring the actual contribution of its investments to the energy and ecological transition. The fund shall measure the actual contribution of its investments and comment on its development, in one of the four areas below, not necessarily exclusively: i. Climate change; ii. Water; iii. Natural resources; iv. Biodiversity. The framework suggests KPIs for each domain.	Mandatory annual impact measurement and report (non-limited list of proposed KPIs in the field of Mitigation/Adaptation/REDD)	Qualitative and quantitative KPIs (rated within the evaluation system - grading model - of the respective funds)	Mandatory: Annual Fund sustainability report The fund will regularly, and at least annually, issue a brief report describing the ESG activities and performance of the fund. The report shall include: main ESG-motivated activities / holdings excluded in the period (also identifying the reason) / A summary of engagements / extent of voting / A general description of relevant and/or material sustainability trends and developments for the fund's holdings in the short or long term. Point score: The sustainability impact of the fund in absolute terms in at least one area, e.g. CO2 reduced (compared with benchmark), renewable GWh produced, clean water provided, km2 of land sustainably managed, etc.	Respective engagement acitivities must be documented. ⍰ Exercise of shareholders rights Voting on general assemblies "proxy voting" ⍰ Commitment - process with contact to enterprises, demonstrating the need for action and possible approaches to solutions publication of the results, etc. ⍰ Combination Execution of shareholder's rights Commitment - process:

		Label TEEC	Luxflag Climate Finance	FNG Siegel	Nordic Swan Ecolabel	Austrian Ecolabel
Labelling criteria	Transparency requirements	Some of the fund's financial management practices must be transparent (use of derivatives, rotation ratio…). Investors' documents must present the environmental strategy of the fund.	The applicant must publish full investment portfolio at least once a year. Additionally, it must describe its Climate Finance objectives (environmental and financial) and be transparent towards investors in its portfolio composition and documentation by providing categories and/or sub-categories of its Climate Finance investments	- Signatory of the Eurosif Transparency Code required - FNG Sustainability profile (a framework developped by FNG showing the RI approach of the fund) required - Impact reporting assessed by the auditor (Points are granted depending on the quality of the KPIs reported)	Mandatory: Annual Fund sustainability report All holdings, updated quarterly Point Score: Detailed engagement information Voting records	Information on: - Basic details about the sustainable investment product - Selection criteria - Survey, evaluation and selection processes - Regular activities The control body assesses on the basis of the European Transparency Guidelines for sustainability funds of EUROSIF the completeness and transparency of the presentation. The complete portfolio composition of generally available Eco-label investment products is available for the respective previous months on the website or upon request. For the TOP 5 issues and/or for 5 selected issues it has to be declared why they have been identified as particularly sustainable.
	Other			Holistic assessment of the entire infrastructure of the fund (like e.g. reporting, organisational structure, commitment of fund management company itself, existence of an RI board, RI policies, research process, internal / external ESG analysis, expertise of people involved) next to its holdings	Point score: Extent on voting Extent onf engagement and company dialogue	Holistic assessment of the methodology of the fund; Point score : minimum performance 65%-points; additional points for engagement and proxy voting or the combination of both
Control & Monitoring Mechanisms		Control and Monitoring Plan Guidelines. The purpose of the Control and Monitoring Plan Guidelines is to describe the principles governing the control and monitoring methods to be taken into account by the certification bodies for and after awarding the "Energy and Ecological Transition for the Climate" label, so that the control and monitoring methods implemented by the certification bodies are equivalent from one certification body to another. It covers three areas: **1-** The process of certifying a candidate investment fund, i.e. the process by which the "Energy and Ecological Transition for the Climate" label is awarded to the fund; **2-** The methods for monitoring a certified (or "awarded") fund; **3-** The management of any observations made on the Control and Monitoring Plan Guidelines in force.	Compliance monitoring at six months	Included into the label's rules of procedures, two feedback-rounds and FAQs	An on-site visit is performed in connection with the application and once a year during the validity of the license. Sample checks are made on a regular basis.	Included in the yearly check during the validity of the license. The licencee can select an assessor from the list of qualified assessors.

Section VII[144]- how "green" is currently defined in finance

A) Description and assessment of selected definitions

This annex provides an overview of the following approaches to defining green (sorted by first letter of the "owner" of the approach).

- China Green Bond Endorsed Project Catalogue
- Climate Bonds Initiative: Climate Bonds taxonomy and eligibility criteria
- Deutsches Institut für Entwicklungspolitik
- France: Climate and Energy Transition Label Taxonomy
- FTSE Russel Environmental Markets Classification System
- G20 Green Finance Study Group

China Green Finance Committee: China Green Bond Endorsed Project Catalogue	
Dimension of green finance	The China Green Bond Endorsed Project Catalogue ("Catalogue") identifies projects that are eligible for (re)financing through **green bonds** falling under the regulation of the People's Bank of China.
Context	The Central Committee of the CPC and the State Council in September 2015 issued the Integrated Reform Plan for Promoting Ecological Progress which, for the first time, clearly stated to initiate the top-level design for the national green financial system, including through the green bond market. Against this background, the **Green Finance Committee** of China Society of Finance and Banking put forward the Green Bond Endorsed Project Catalogue (2015 Edition). The catalogue aims to provide an explicit guideline for green investment projects. The Committee commissioned CECEP Consulting Co., Ltd. and the Research Centre of Climate and Energy Finance of Central University of Finance and Economics to prepare the Catalogue and undertake relevant research work. During the research stage, the Committee organized four symposiums and solicited feedback in written and other forms from hundreds of organizations including all members of the Committee.
Conceptual definition	In addition to challenges from climate change, China is facing other issues such as severe environmental pollution, aggravated resource constraints and deteriorated ecological degradation. Environmental benefits are thus framed to comprise GHG emission reduction, pollution reduction, resource conservation, ecological protection, etc.
Taxonomy / sectoral focus	The Catalogue lists **six Level-1 categories** of projects with marked environmental benefits (Energy Saving; Pollution Prevention and Control; Resource Conservation and Recycling; Clean Transportation; Clean Energy; Ecological Protection and Climate Change Adaption), **31 Level-2 categories** as well as a large number of **Level-III categories**, with detailed explanations and defining criteria as well as links to the national industries classification codes.
(Inclusion / exclusion) Criteria	For some categories it is specified which existing sectoral benchmarks and guidelines the technology or activity has to comply with (e.g. as defined in national standard of energy consumption allowance for unit product, Evaluation Standard for Green Building, standard of Chinese organic products, etc.). For Solar Photovoltaic (PV) Power Generation, specific thresholds are defined regarding conversion efficiency and decay rate.
Impact indicators	No impact indicators included in the catalogue.

[144] Based on a study - Defining "green" in the context of green finance - 2017

Product / process standards	No product or process standards specified in the catalogue.
Investor implications	The catalogue is set out to follow a number of principles, including simplicity and clarity of environmental details tailored to capital market practitioners and alignment with international practice. This probably makes it easier for issuers to implement the taxonomy. Moreover, the Green Bond Endorsed Project Catalogue will be merged with the catalogues of green projects developed by other Chinese institutions, thus further reducing complexity for issuers and investors. In 2016 China's green bonds volume aligned with China's green definitions (but not necessarily with international green definitions, e.g. as determined by the Green Bond Principles) made up USD 36bn or 39% of the global volume.
Source	Green Bond Endorsed Project Catalogue (2015 Edition) http://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Preparation-Instructions-on-Green-Bond-Endorsed-Project-Catalogue-2015-Edition-by-EY.pdf CBI (2016): Roadmap for China: Green bond guidelines for the next stage of market growth https://www.climatebonds.net/files/files/CBI-IISD-Paper1-Final-01C_A4.pdf CBI (2017): China Green Bond Market 2016: https://www.climatebonds.net/files/files/SotM-2016-Final-WEB-A4.pdf

Climate Bonds Initiative: Climate Bonds taxonomy and eligibility criteria	
Dimension of green finance	The Climate Bonds taxonomy and sector-specific eligibility criteria are meant to support issuance of / investment in **green / climate-aligned bonds**.
Context	The **Climate Bonds Initiative** (CBI) supports the growth of worldwide green bond markets through the development and certification of standards, knowledge creation and networking. As part of its Climate Bonds Standard & Certification Scheme it coordinates the development and constant refining of a taxonomy and sector-specific eligibility criteria for 'low carbon and climate resilient' investments. The taxonomy is developed and continuously updated by the CBI team. The eligibility criteria are prepared by Technical Working Groups, made up of scientists, engineers and technical specialists, with support from expert advisory committees. Draft criteria are presented to Industry Working Groups before being released for public comment. Finally, criteria are presented to the Climate Bonds Standard Board for approval.
Conceptual definition	The Certification Scheme allows investors, governments and other stakeholders to prioritise 'low carbon and climate resilient' investments. Specifically, this includes projects or assets that directly contribute to: • Developing low carbon industries, technologies and practices that mitigate greenhouse gas (GHG) emissions consistent with avoiding dangerous climate change • Essential adaptation to the consequences of climate change
Taxonomy / sectoral focus	The **Climate Bonds Taxonomy** identifies 8 sectors that can be eligible for green and climate bonds: energy; buildings; industry; waste, pollution control and sequestration; transport; information technology and communication (ITC); agriculture & forestry; adaptation. For each sector, specific **inclusions**, **exclusions** and investment areas for which **more work** has to be done are defined. Further explanations and restrictions are added for most areas to support selection of eligible investments.
(Inclusion / exclusion)	The investment areas that are specifically marked as "**excluded**" in taxonomy are: nuclear power, fossil fuels (incl. fossil fuel efficiency and energy savings related to fossil fuel extraction, transport, power generation; rail transport of fossil fuels), landfill and waste incineration without gas/energy capture, timber harvesting, and agriculture on

Criteria	peat land. In order to become certified under the Climate Bonds Standards V2.1 green bonds have to comply with additional **eligibility criteria**. These are currently available for solar; wind; geothermal; water; low carbon buildings (residential); low carbon buildings (commercial); and low carbon transport. Criteria will be available soon for bioenergy; Land use; hydropower; marine; waste management; and information technology and broadband. Technical working groups will start working on other eligibility criteria soon. The Criteria are to be reviewed one year after launch. Generally, they are likely to be revised and refined over time, as more information becomes available. For example, the Water Criteria will be reviewed annually for at least the first three years.
Product / process standards	The Climate Bonds taxonomy is part of the Climate Bonds Standard & Certification Scheme. In order to become certified, issuers have to comply with a range of pre- and post-issuance requirements, which are largely aligned with the Green Bond Principles. • **Pre-Issuance Certification**: Assessment and certification of the bond issuer's internal processes, including its selection process for projects & assets, internal tracking of proceeds, and the allocation system for funds. • **Post-Issuance Certification**: Assessment and certification of the bond, which must be undertaken after the allocation of bond proceeds is underway, and includes assurance from the Verifier that the issuer and the bond conform with all of the Post-Issuance Requirements of the Climate Bonds Standard. An issuer may also choose to voluntarily repeat the post-issuance certification process on a periodic basis.
Investor implications	Globally, 57 Climate Bonds were certified by September 2017. The Climate Bonds taxonomy is rather detailed and allows fast identification of (in)eligible investment areas. The different sector-specific eligibility criteria, in turn, require more in-depth scrutiny. The criteria are structured differently for each sector which can be particularly challenging for issuers whose bond projects fall into different green categories. Benefits for issuers, according to CBI: • More diverse investor base: certification signals the low-carbon integrity of the bond and is important for investors looking for climate related investments. Most issuers of Certified Climate Bonds find that the range of investors interested in their bond is much broader. • Easier-to-find: certification allows potential investors to quickly find a credible green / climate bond on Bloomberg and via other providers of market information. • Enhanced reputation: certification allows an issuer to associate its organisation with efforts to scale up financial flows for delivering the low-carbon economy and securing prosperity for future generations. • Lower cost: issuers pay less for certification than for a second opinion, and investors avoid the cost of environmental due diligence. Benefits for investors, according to CBI: Investors can use the Climate Bond Standard as a screening tool to assure the low-carbon nature and integrity of their fixed-income investments. A liquid market of certified Climate Bonds also allows investors to actively participate in the delivery of the Low-Carbon Economy in three key ways: • Hedge against future climate risks by financing a low-carbon transition • Signal to the market their appetite for suitably risk-adjusted green deal-flow; • Signal to governments their willingness to invest in the low-carbon transition subject to stable policy frameworks and risk-adjusted returns.

Policy implications / EU relevance	The taxonomy and eligibility criteria have been/are being developed with stakeholders from the EU and beyond. They should thus support bond issuers across different countries. So far, bonds from the USA, UK, Australia, Morocco, France, Philippines and global programmes have been certified.
Sources	Climate Bonds Standard (V2.1): https://www.climatebonds.net/standards/standard_download Full taxonomy: https://www.climatebonds.net/files/files/cbi-green-climate-definitions-v1_2.xlsx Overview of available eligibility criteria: https://www.climatebonds.net/standard/sector_criteria

Deutsches Institut für Entwicklungspolitik	
Conceptual definition	Green finance comprises 1) The financing of public and private green investments (including preparatory and capital costs) in the following areas • environmental goods and services* (such as water management or protection of biodiversity and landscapes) • prevention, minimization and compensation of damages to the environment and to the climate (such as energy efficiency or dams) 2) The financing of public policies (including operational costs) that encourage the implementation of environmental and environmental-damage mitigation or adaptation projects and initiatives (for example feed-in-tariffs for renewable energies) 3) Components of the financial system that deal specifically with green investments, such as the Green Climate Fund or financial instruments for green investments (e.g. green bonds and structured green funds), including their specific legal, economic and institutional framework conditions
Source	Lindenberg, Nanette (2014): Definition of Green Finance, http://www.die-gdi.de/uploads/media/Lindenberg_Definition_green_finance.pdf

France: Energy and Ecological Transition for the Climate (TEEC) Label	
Dimension of green finance	The label aims to specifically identify **investment funds** (equity funds, green bond funds, infrastructure funds and private equity) that contribute to the energy and ecological transition.
Context	In 2014, the French government announced its intention to create an **Energy and Ecological Transition for Climate (TEEC) label** and an SRI label. These labels aim to help investors comply with legal requirements to demonstrate the alignment of their portfolio to national and international targets (as specified in the Law N° 2015-992 on Energy Transition for Green Growth, adopted in 2015). The TEEC label was developed by a working group with representatives of important stakeholder groups, on behalf of the French Ministry of the Environment, Energy and Marine Affairs (now: Ministry of Ecological and Solidarity Transition). The first version of the "Criteria Guidelines" was published in 2015. The criteria guidelines specify the following: • Eligibility criteria for candidate funds (eligible funds, funds' assets, special cases) • Label criteria "Pillar I - Fund's objectives and methodology for the selection of assets […]" • Label criteria "Pillar II – Consideration of ESG Criteria in the construction and life of the portfolio" • Label criteria "Pillar III – Highlighting positive impacts on energy and ecological transition" • Appendix 1 - Definition of activities falling within the scope of the energy and ecological transition • Appendix 2 - Strict and partial exclusions

	• Appendix 3 - Portfolio allocation thresholds between the various allocation categories • Appendix 4 - Information to be submitted regarding environmental impact measurements • Appendix 5 - Requirements for the use of derivative instruments within an TEEC-certified fund • Appendix 6 – List of documents to submit The underlined components specify the items that can (or explicitly cannot) be labelled as "contributing to the energy and ecological transition". In the following, these aspects will be looked at in more detail.
Conceptual definition	Funds are only eligible if most of their assets under management (AUM) are invested in companies which support the **energy and ecological transition**. This is measured through different approaches, including a taxonomy of eligible activities, exclusion criteria as well as impact indicators.
Taxonomy / sectoral focus	The **taxonomy** (provided in Appendix I of the Criteria Guidelines) lists 8 eligible sectors (energy, building, industry, waste management/pollution control, transport, ICT, agriculture & forestry, adaptation). For each sector, further "areas" (e.g. solar energy), "specific categories and activities" (e.g. "PV solar electricity") and descriptions are provided. The taxonomy is the same as that of the CBI with some changes and further specifications: • Certain activities listed in the CBI taxonomy have been excluded (fuel efficient vehicles, broadband) [A]; • The descriptions of certain activities appearing in the CBI taxonomy have been specified [B]; • Certain activities considered by the CBI taxonomy as requiring additional work, which are therefore not currently eligible, have been deemed eligible by the EETC taxonomy [C]; • A "Services" category has been added to the "Energy", "Buildings" and "Industry" sectors.
(Inclusion / exclusion) Criteria	The **exclusion criteria** (provided in Appendix II of the Criteria Guidelines) are as follows: Strict exclusion: Companies having activities pertaining to: • The exploration-production and exploitation of fossil fuels; • The entire nuclear sector, namely the following activities: uranium extraction, uranium concentration, refining, conversion and enrichment, the production of nuclear fuel structures, construction and use of nuclear reactors, treatment of spent nuclear fuel, nuclear decommissioning and radioactive waste management. Partial exclusion: • Service companies and companies involved in the distribution / transportation and the production of equipment and services are excluded, in so far as 33% [inclusive] or more of their turnover comes from clients from the strictly excluded sectors (as defined above). • Companies making 33% [inclusive] or more of their turnover from one of the following activities are excluded: Storage and landfill centres without GHG capture; Incineration without energy recovery; Energy efficiency for non-renewable energy sources and energy savings linked to optimising the extraction, transportation and production of electricity from fossil fuels; Logging, unless managed in a sustainable fashion as defined in appendix 1, and peatland agriculture. Other **relevant criteria**: As specified in Appendix 3, funds can be labelled as green even if less than 100% of their proceeds are used for green purposes. For example: • **Funds invested in unlisted securities**: At least 75% of the fund's total AUM is invested in companies for which turnover supporting the energy and ecological transition in accordance with the classification is at least 50%. • **Bond funds**: The percentage of AUM invested in green bonds must be at least 83.5% of the fund's total AUM.

	In case of bond funds, the management company needs to be a member of the Green Bond Principles.
Impact indicators	Funds have to measure the actual contribution of their investments and comment on their development, in one of the following four areas, not necessarily exclusively: climate change; water; natural resources; biodiversity. Appendix 4 of the criteria guidelines describes in more detail 1) the objectives of each field and provides 2) suggested indicators. The impact indicators are only indicative and can be developed by each fund individually. • **Climate change**: 1) Measure the GHG emissions of investments or ensure that portfolio composition is compatible with the "+2°C" scenarios; 2) Statement of scope 1 and 2 GHG standardised emissions + tier 1 suppliers and products sold (annual tCO2eq, or other GHGs if applicable) proportionally to turnover (tCO2eq/EUR million or USD million of turnover). If data for scope 3 emissions is not available, focus on scope 1 and 2 emissions to begin with; CO2 emissions avoided (in tonnes/year); Compatible with "+2° C" climate performance indicator. • **Water**: 1) Reduce water consumption while maintaining its quality level; 2) Total water consumption equal to the total measured volume of withdrawn water less the total volume of discharge (liquids, steam). It includes water which is also a raw material in products or manufacturing and conditioning processes. The results can be provided in relation to an activity unit; Volume of reused water from collected and treated used water, in relation to, where appropriate, an activity unit. • **Natural resources**: 1) Preserve natural resources; 2) Consumption of natural resources including critical resources (t/EUR million or USD million of turnover); Share of renewable energies in the energy mix; Production of raw materials from recycling. • **Biodiversity**: 1) Preserve the biodiversity of ecosystems; 2) Percentage of issuers disclosing their expenditure on biodiversity / number of companies represented in the portfolio; Average expenditure of issuers committed to biodiversity, compared to turnover.
Product / process standards	Certified funds comply with following seven criteria structured in three pillars: • **Pillar I: Making available information on the fund's objectives and methodology** for selecting assets contributing to the energy and ecological transition: 1) general, financial and environmental objectives embedded in environmental data, 2) methodology for evaluating the green portion of the portfolio, 3) exclusion of assets that go against the energy and ecological transition • **Pillar II: Incorporation of ESG criteria into the portfolio's construction and investment choices**: 4) Active monitoring of controversial ESG practices and demonstrating the impact on the portfolio's construction and investment choices, 5) Transparency of fund's management practices • **Pillar III: Promotion of the positive impacts on the energy and ecological transition**: 6) establishment of a mechanism for measuring the actual contribution of the funds' investments to the energy and ecological transition, 7) Reporting, including impact indicators on the benefits in terms of the energy and ecological transition Novethic Research Centre and EY France are the responsible auditors conducting TEEC certification. The certified fund is awarded TEEC certification for one year. After initial certification, a follow-up report is produced to ensure ongoing compliance of guidelines and proper use of the logo.
Investor implications	The TEEC Label taxonomy is rather detailed and allows fast identification of (in)eligible investment areas. Given the comprehensive requirements for certification, the number of certified funds remains low. 15 funds were successfully certified by September 2017.
Policy implications / EU relevance	The label is designed to meet French legal standards but can be applied to financial funds from other countries in- and outside the European Union. Control and Monitoring Plan Guidelines have been developed to make sure that the control and monitoring methods implemented by the certification bodies are equivalent from one certification body to another.
Source	Criteria guidelines: https://www.ecologique-solidaire.gouv.fr/sites/default/files/Label_TEEC_Criteria%20Guidelines.pdf

	Homepage of the Ministry of Ecological and Solidarity Transition: https://www.ecologique-solidaire.gouv.fr/label-transition-energetique-et-ecologique-climat Control and Monitoring Plan Guidelines: https://www.ecologique-solidaire.gouv.fr/sites/default/files/Label_TEEC_Control%20and%20Monitoring%20Plan%20Guidelines.pdf

FTSE Russel: Environmental Markets Classification System	
Dimension of green finance	Classification system that aims to help investors define and measure the performance of global **environmental market companies** providing products and services that deliver solutions to environmental challenges and include environmental technology, also referred to as cleantech.
Context	Since 2007 FTSE Russell, a global provider of benchmarking, analytics and data solutions for investors, and Impax Asset Management, a leading investment firm, have been developing the Environmental Markets Classification System (EMCS). The EMCS is used as a basis for the creation of the FTSE Environmental Markets indexes, including both the FTSE Environmental Opportunities (EO) and Environmental Technology (ET) families of indexes.
Conceptual definition	Environmental markets definition: Companies that provide products and services offering solutions to **environmental problems**, or that improve the **efficiency of natural resource use**.
Taxonomy / sectoral focus	Eligible environmental market companies are classified into **7 sectors** (Renewable & alternative energy, Energy efficiency, Water infrastructure & technologies, Pollution control, Waste management & technologies, Environmental support services, Food, agriculture & forestry) and **30 sub-sectors**. For each sub-sector, a short description of the type and activity of eligible companies is provided.
(Inclusion / exclusion) Criteria	In order to qualify for the **EO index series** companies must derive at least **20% of their business**[145] from environmental market sectors. These activities must show a net environmental benefit. In order to qualify for the **ET index series** companies must derive at least **50% of their business** from environmental market sectors. In addition, the activities must be 'transformational', defined as where they deliver a clear and significant environmental benefit. On this basis the activities in the following are **not eligible**: • Water Utilities • General Waste Management • Diversified Environmental • Hydro power • Steel recycling • Construction companies • Transmission and distribution technology
Impact	It is stated that eligible environmental market activities must deliver a (clear and significant) environmental benefit.

[145] The nature of a company's business is usually determined through analysis of 1) Environmental market revenues against total revenues; 2) Environmental market invested capital against total invested capital, 3) Environmental market EBITDA against total EBITDA

indicators	Yet, it is not specified how this is measured.
Investor implications	This classification system can be used by investors globally to assist them in identifying and measuring investment opportunities in environmental markets. The EMCS provides a higher granularity for environmental markets classification than the standard system for classifying companies (Industry Classification Benchmark, ICB) and thus increases opportunities to invest in environmental markets.
EU relevance	The EMCS can be applied globally. Regional indexes, all based on the EMCS, are available for the UK, Europe, U.S. and Asia Pacific.
Source	FTSE Environmental Markets Methodology: http://www.ftse.com/products/downloads/FTSE_Environmental_Markets_Classification_System.pdf ET index series rules: http://www.ftse.com/products/downloads/FTSE_Environmental_Technology_Index_Series.pdf?513 EO index series rules: http://www.ftse.com/products/downloads/FTSE_Environmental_Opportunities_Index_Series.pdf?513

G20 Green Finance Study Group	
Conceptual definition	On a conceptual level, 'green finance' can be understood as financing of investments that provide environmental benefits in the broader context of environmentally sustainable development. These environmental benefits include, for examples, reduction in air, water and land pollution, reductions in GHG emissions, improved energy efficiency while utilizing natural resources, as well as mitigation of and adaptation to climate change and their co-benefits. Beyond the financing of green investments, green finance also involves efforts to internalize environmental externalities and adjust risk perceptions in order to boost environmental friendly investments and reduce environmentally harmful ones. As regards the functioning of the financial markets, green finance also means an improved understanding and pricing of financial risks related to environmental factors.
Source	G20 Green Finance Synthesis Report, http://unepinquiry.org/wp-content/uploads/2016/09/Synthesis_Report_Full_EN.pdf

B) List of Definitions

Application to…	Developed by…	Name	Eligibility assessment based on…	Comment
All finance / not specified	Guideline / policy	MDB-IDFC Common Principles for Climate Mitigation Finance Tracking	Taxonomy	Important reference framework
All finance / not specified	Guideline / policy	IDFC green finance tracking methodology 2014	Taxonomy	One of the eraliest approaches to tracking green finance
All finance / not specified	Guideline / policy	UNEP positive impact finance principles	Process standard	The Principles do not prescribe which methodologies and KPIs to use to identify, analyse and verify positive impact.
All finance / not specified	Scientific paper	G20 GFSG	Conceptual definition	Widely disseminated and very up-to-date definition, yet only broad conceptual approach.
All finance /	Scientific paper	German Development	Conceptual	Scientific approach that means

not specified		Institute (DIE)	definition	to integrate existing conceptual definitions
Bonds	Labels, certification schemes	Climate Bonds Standard	Taxonomy, exclusion criteria, sector-specific eligibility criteria	Widely acknowledged and detailed approach, good stakeholder integration.
Bonds	Labels, certification schemes	LuxFLAG Green Bond Label	Taxonomy (referring to GBP)	Relatively unspecific, taxonomy referring to GBP
Bonds	Guideline / policy	Green Bond Principles (GBP)	Taxonomy, process standard	Taxonomy is very short and broad compared to CBI, yet the framework is used widely
Bonds	Guideline / policy	China Green Bond Endorsed Project Catalogue	Taxonomy	Very detailed, including controversial sectors that are important for discussion, embedded in wider GF efforts
Bonds	Guideline / policy	Morocco Green Bond guidelines	Taxonomy	Very broad taxonomy with exemplary character
Bonds	Guideline / policy	US Energy Conservation / Renewable Energy Bonds	Taxonomy	Very narrow focus on energy
Bonds	Guideline / policy	EIB Climate Action Bonds	Taxonomy	Based on MDB-IDFC, so no need for extra assessment
Bonds	Guideline / policy	Nordic Investment Bank	Taxonomy	Early taxonomy, with focus on emission reductions (beyond CO2)
Bonds	Guideline / policy	Working group of eleven International Financial Institutions	Impact metrics	Four impact indicators defined for RE and EE
Bonds	Guideline / policy	GBP Impact Reporting Working Group	Impact metrics	Three core indicators for sustainable water and wastewater management, other sustainability indicators
Bonds	Index	Bloomberg Barclays MSCI Global Green Bond Index	Taxonomy	Very open and short list of eligible environmental categories
Bonds	Index	HSBC Green Bonds	Taxonomy (referring to GBP)	This index required green bonds to be compliant with the Green Bond Principles
Bonds	Index	S&P Green Bond Index	Taxonomy (referring to CBI)	This index required green bonds to be in line with the Climate Bonds Standard
Bonds	Rating	Cicero Shades of Green	Assessment methodology	Assesses the expected environmental effectiveness / impact of the bond issue (How forward looking is it?)
Bonds	Rating	S&P Green Evaluation	Assessment methodology	Assesses the expected environmental effectiveness / impact of the bond issue (What are key environmental impacts?)
Bonds	Rating	Moody's Green Bond Assessment	Assessment methodology	Assesses the expected environmental effectiveness / impact of the bond issue (How well does the issuer follow the GBP?)
Credit	Guideline / policy	Equator Principles	Process standard	Env. impacts not specifically

				defined - based on IFC Performance Standards and Industry Specific EHS Guidelines; Apendix II provides illustrative list of issues incl. some environmental issues (biodiversity, renewable natural resources, etc.)
Credit	Guideline / policy	Nordic Investment Bank	Exclusion criteria	Defining brown rather than green projects (not necessarily excluded, but require additional EIAs)
Credit	Guideline / policy	China Green Credit Statistics	Taxonomy	Broad but general taxobnomy of eligible sectors, going beyond climate
Credit	Guideline / policy	Netherlands Green Funds Scheme	Taxonomy	Very broad taxonomy based on Green Certification scheme
Credit	Guideline / policy	Bangladesh Green Banking Guidelines	Taxonomy	Not a clear taxonomy but rather listing of relevant sectors throughout the guideline
Credit	Guideline / policy	New York Green Bank	Taxonomy	Very narrow focus on energy
Credit / Investment	Guideline / policy	Deutsche Bank CC Investment Universe	Taxonomy	Last version seems to be from 2012; Climate change research team was dissolved in 2012
Credit / investment	Guideline / policy	UK GIB Investment Policy	Taxonomy, green "purposes"	Investment policy specifies green purposes (going beyond climate) that investments are expected to contribute to
Investment	Index	FTSE Russel Environmental Markets Class. System	Taxonomy	Relatively detailed, going beyond climate-related sectors
Investment	Index	FTSE Russel Low Carbon Economy Class. System	Taxonomy	Preference for FTSE Env. Markets, as going beyond climate
Investment	Index	MSCI Global Environment Index	Taxonomy	Taxonomy going beyond climate
Investment	Index	MSCI Global Climate Index	Taxonomy	Eligible project categories include controversial technologies, such as future fuels
Investment	Index	NASDAQ Green Economy Index	Taxonomy	Interesting as applicable to a wide range of financial products, however, very short and broad
Investment	Index	HSBC Investable Climate Change Index	Taxonomy	Eligible project categories include controversial technologies, such as fuel efficient cars
Investment	Index	S&P Global Eco Index	Taxonomy	Very superficial and open taxonomy
Investment	Labels, certification schemes	France Climate and Energy Transition Label	Taxonomy, exclusion criteria, suggestions for impact	Based on CBI, very detailed; comparison with CBI available; embedded in label (assessment thus going beyond taxonomy)

			measurement	
Investment	Labels, certification schemes	LuxFLAG Environment Label	Taxonomy (referring to "globally recognised classification systems")	Relatively unspecific, taxonomy based on external approaches (so no advantage over LuxFLAG climate label here)
Investment	Labels, certification schemes	LuxFLAG Climate Label	Taxonomy (referring to MDB-IDFC Common Principles […] and CBI)	More detailed than Environment label, hence more informative for the project
Investment	Labels, certification schemes	Novethic Green Fund Label	Process standard	Requires applicant funds to define an environmental theme and to sub-divided it into environmental-related activities
Investment	Labels, certification schemes	EUROSIF Transparency Code	Process standard	Signatories to the transparency code disclose their sustainability strategies, assessment methods, etc.
Investment	Labels, certification schemes	FNG-Siegel	Process standard	Does not entail a definition of green because focus is on awarding thos funds with best ESG performance
Investment	Labels, certification schemes	Label ISR - Investissement Socialement Resp.	Process standard	Does not entail a definition of green because focus is on awarding thos funds with best ESG performance
Investment	Labels, certification schemes	Novethic SRI Label	Process standard	Does not entail a definition of green because focus is on awarding thos funds with best ESG performance
Investment	Labels, certification schemes	Ethibel Excellence Label	ESG rating (by Ethibel)	Does not entail a definition of green because focus is on awarding thos funds with best ESG performance
Investment	Labels, certification schemes	Ethibel Pioneer Label	ESG rating (by Ethibel)	Does not entail a definition of green because focus is on awarding thos funds with best ESG performance
Investment	Other	IRIS 4.0 Impact performance metrics	Impact indicators	Catalogue of performance metrics to measure social, environmental, and financial performance of investments
Investment	Standard / norm	Principles of responsible investment	Process standard	No definition of the environmental issues considered under ESG described in the Principles.
Other	Index	US Clean Technology Index	Taxonomy	Not specifically related to finance
Other	Standard / norm	World Bank EHS Guidelines	Standard	Not specifically related to finance
Other	Standard / norm	IFC Performance Standard 6	Standard	Not specifically related to finance

Other	Guideline / policy	Sustainable development goals	Taxonomy	Very important framework that will guide development (finance) in the next decade(s)

Process standard: Applicant must apply certain investment strategies to make sure portfolio shows good environmental performance (ESG assessment, exclusion, etc.)

Section VII – detailed stakeholders' views

Table 39: Detailed stakeholders' views on taxonomy

Stakeholders	EU (regulatory) intervention	Scope	Level of detail
Overall	The large majority of respondents supported the development of a taxonomy at EU level. A large number of stakeholders underlined that an EU taxonomy should build upon, or at least take into account, existing international frameworks (UN SDGs) and classifications (Climate Bonds Initiative, EuroSIF, TCFD, etc.).	A majority of the respondents indicated that an EU taxonomy should eventually cover all sustainability objectives (E, S and G). Some respondents favoured a step-by-step approach starting with environment.	Stakeholders had diverging views on the level of detail an EU taxonomy should have. While the financial industry generally favoured a non-prescriptive taxonomy, other stakeholders (private individuals and civil society) preferred a more detailed taxonomy, providing clear definitions and (measureable) criteria.
Public authorities / supervisors and international organisations (*13 replies from the public* consultation*)*	All stakeholders in this category supported the creation of an EU taxonomy. Some stakeholders underlined the need to build upon existing classifications.	A limited number of stakeholders indicated that an EU taxonomy should include a wide range of assets, projects and financial products. A few stakeholders indicated that all three dimensions (i.e. E, S and G) of sustainability should be included in an EU taxonomy.	One stakeholder indicated that any taxonomy needs to be flexible and principle based. Other stakeholders in this category did not express views on this issue.
Financial institutions and industry associations (*82 replies from the public consultation and 18 replies from targeted interviews*)	A majority of the stakeholders welcome the development of a taxonomy at EU level. A large number of respondents emphasised that an EU taxonomy should make use of existing classifications and frameworks. Some stakeholders	Most stakeholders in this category believed that an EU taxonomy should include the E, S and G dimensions, although some stakeholders acknowledged that starting with E would be the most feasible approach. A majority of the respondents indicated that an EU taxonomy should	Almost all respondents indicated that a taxonomy at EU level should not be prescriptive, but rather principle-based and flexible.

	indicated that EU action needs to be proportionate and that a gradual approach is preferred.	cover a broad range of asset classes (equity, bonds, etc.). Views diverged on whether it should cover financial products or not.	
Private individuals (*39 replies from the public consultation*)	A large majority of the respondents supported the creation of an EU taxonomy. Several of these respondents believed that a taxonomy could enhance investors' confidence in sustainable investment. A few respondents believed that the UN SDGs should be used as guiding principles and common language to develop an EU taxonomy.	Several respondents noted that an EU taxonomy should both include and exclude certain activities/assets (no best-in-class approach) and that it should be open to all types of financial instruments. Very few stakeholders expressed a view on what sustainability dimensions should be included. The few that did had diverging views.	Several stakeholders indicated that an EU taxonomy should formulate clear, standardised and measurable criteria – meaning that the taxonomy should be detailed.
Think thanks, academic institutions and NGOs (*40 replies from the public consultation*)	A large majority of the stakeholders in this category supported the development of a taxonomy at EU level. Several stakeholders emphasised that such a taxonomy should be developed with the involvement of a broad group of stakeholders (including civil society).	Almost all respondents indicated that an EU taxonomy should have a broad scope with all businesses, asset classes and financial products included, as well as cover all three dimensions of sustainability (E, S and G).	The few respondents that expressed a view on this issue indicated that a taxonomy should provide a clear definition of E, S and G and be sufficiently detailed, providing clear criteria.
Other respondents (incl. non-financial companies) (*49 replies from the public consultation*)	A large majority of stakeholders supported the creation of an EU taxonomy. There were diverging views whether such a taxonomy should be legally binding or merely 'advisory'. A large number of stakeholders believed that an EU taxonomy should build on existing classifications and international and national frameworks.	With a few exceptions, all respondents believed that an EU taxonomy should include E, S and G dimensions. Several respondents indicated that the taxonomy should focus on assets and projects rather than financial products, while others were of the opinion that the latter should also be covered by the taxonomy.	Very few stakeholders expressed an explicit view on the required level of detail of an EU taxonomy. Those that did argued that it should not be overly prescriptive.

ANNEX 9: METHODOLOGY FOR LOW-CARBON INDEXES

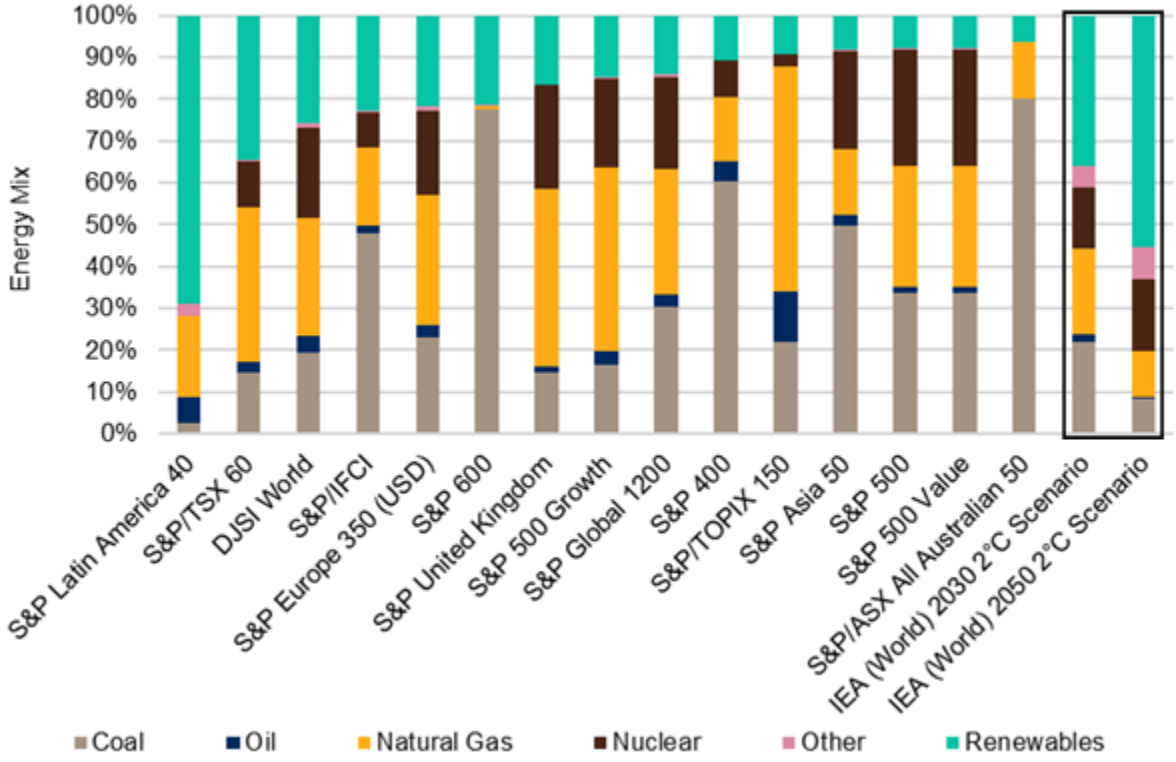
Why the focus on financial indices?

Given the amount of money required to shift to a low carbon economy, the financial community – both the providers of products and the buy side of investors - will be instrumental in driving technological development and innovation. The United Nations estimated that USD 90 trillion investment in infrastructure will be needed over the next 15 years in order to attain the 2 °C global warming cap set by the Paris Agreement. Almost 30% of this amount will need to be directed toward sustainable investments and renewal investments in the energy sector.

The International Energy Agency (IEA 2017) has set energy generation mix targets for 2030 and 2050 that would keep the world on a 2 °C warming pathway.

Table 1 shows the percentage of total energy generated by utilities over a 12-month period, via fossil fuels, renewables, and other power sources. The table compares several common capital weighted stock indices to the International Energy Agency's 2 °C scenarios in order to assess their alignment with a transition toward a low carbon economy.

Figure 13: Energy mix in major global equity indices



Source: IEA (2017)

Financial indices are an important tool to channel investments, either as reference values for a passive investment strategy or as performance benchmarks for an active investment strategy. Tackling climate change through the increased supply of Low Carbon Indices (LCI) that serve either as reference benchmarks for a passive portfolio or as performance benchmarks for active managers, therefore promises a **significant impact on investor behaviour and on the pricing of climate-related assets.**

Basics of existing "low carbon" methodologies and index construction

Over the past decade, asset managers and index providers have designed **hundreds of climate-related stock indices and funds**. The approaches and methodology used have evolved over time to become more and more sophisticated. Since at the early stage of the development of socially responsible investment, investors and index providers simply excluded certain sectors or activities or companies based on their negative externalities (ex: fossil-fuels, coal mining) to filter the components of the funds/indices, they now consider the carbon intensity and forward-looking approaches based on scenario analysis.

a. Data sources for low carbon indexes

Index providers generally collect **carbon emissions data** from company-specific sources or the data that is compiled by the Carbon Disclosure Project (CDP). However, even if the quantity and quality of information disclosed by issuers has improved, there is a **data reliability bias,** since data are provided by the issuer without being verified by a third party. In addition, the vast majority of companies do not disclose scope 3 emissions, which could have a higher impact in terms of GHG emissions than scope 1 and 2 emissions.

Box 9: Explanation of scope 1, 2 and 3 emissions

Scope 1 emissions, referred to as Direct GHG, are defined in the GHG Protocol as 'emissions from sources that are owned or controlled by the organization', such as:

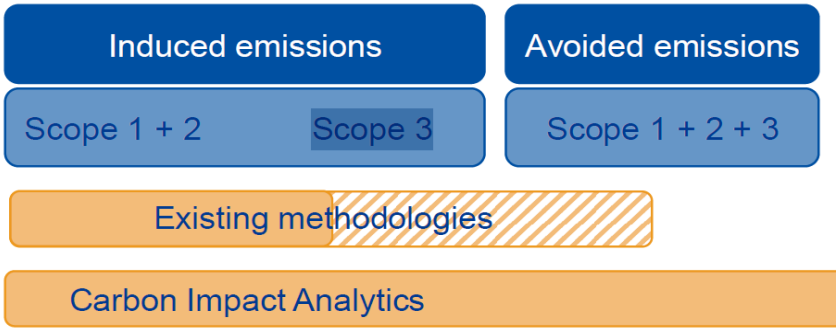
- Stationary Combustion: from the combustion of fossil fuels (e.g. natural gas, fuel oil, propane, etc.) for comfort heating or other industrial applications
- Mobile Combustion: from the combustion of fossil fuels (e.g. gasoline, diesel) used in the operation of vehicles or other forms of mobile transportation
- Process Emissions: emissions released during the manufacturing process in specific industry sectors (e.g. cement, iron and steel, ammonia)
- Fugitive Emissions: unintentional release of GHG from sources including refrigerant systems and natural gas distribution

Scope 2 emissions, also referred to as Energy Indirect GHG, are defined as 'emissions from the consumption of purchased electricity, steam, or other sources of energy (e.g. chilled water) generated upstream from the organization'.

Scope 3 emissions, also referred to as Other Indirect GHG, are defined as 'emissions that are a consequence of the operations of an organization, but are not directly owned or controlled by the organization'. Scope 3 includes a number of different sources of GHG including employee commuting, business travel, third-party distribution and logistics, production of purchased goods, emissions from the use of sold products, and several other. Based on data from many companies that have conducted comprehensive assessments of their Scope 3 emissions, it is evident that Scope 3 GHG are by far the largest component of most organizations' carbon footprint.

Source: BPA Worldwide

Figure 14: Emission scope and methodologies



Source: Carbone 4 (2015)

If a company does not report emissions, the index provider estimates carbon emissions by the average emissions per dollar (euro) of issuer market capitalisation for companies in the same industry group.

Data on **fossil fuel reserves** is calculated based on reserve data published by the companies that have reserves, typically oil and gas, coal mining and electric utility companies. As the size of reserves influences a company's market valuation, the index provider accounts for the size by dividing the company's carbon reserves by its market capitalisation. Reserves are converted to potential carbon emissions by using a formula from the Potsdam institute for Climate Impact Research (e.g., MSCI Global Low Carbon Target Indexes).

b. The evolution of the index providers' methodologies

Methodologies based on the measure of the carbon footprint (see figure 15 below)

Measuring the carbon footprint of a portfolio is a complex issue. The lack of harmonisation of the methodologies and the confusing range of choices of method and initiatives to measure carbon footprint, result in costs for benchmark providers companies and confusion for investors. The majority of the methodologies developed by asset managers and index providers are based on the carbon footprint (scope 1 and 2 of induced emissions) to assess the greenhouse gas emissions associated with an index portfolio, as it offers a baseline from which to mitigate risks and drive investments toward lower carbon alternatives. Since the launch of the Montreal Carbon Pledge in September 2014, more than 120 signatory market participants, representing over USD 10 trillion in assets under management (AUM), have committed to measuring and publically reporting their portfolio carbon footprints on an annual basis.

- *Scope 1 and 2 emissions*

Most low carbon index providers differentiate between direct and indirect carbon emissions. Direct emissions are usually taken to include all direct greenhouse gas (GHG) emissions from sources owned or controlled by a company. Examples include emissions from fossil fuels burned on site or vehicle emissions from the fleet owned by the company.

Indirect emissions are usually defined as emissions that result from a company's consumption of, e.g., purchased electricity (scope 2), heat or steam and emissions caused by losses in the energy transmission and distribution process (e.g., MSCI, Carbon Footprinting 101, September 2015, p. 12). Some providers also include indirect emissions that occur from sources outside of or not controlled by the company, such as emissions caused by the

extraction of purchased raw materials and emissions caused by the use of the company's product.

The majority of providers disregard scope 3 emissions as the companies are not deemed to be in control of these emissions or because these types of emissions are more difficult to measure, and also because they rely on corporate reporting, which in the best case only covers Scope 1 and Scope 2. For example, S&P Dow Jones indices are opposed to including indirect emissions caused by the company's users for the flowing reasons:

"*There is a case for only measuring direct emissions when calculating a carbon footprint. This casts a net around emissions that the investee (and, to a lesser extent, the investor) has a direct sphere of influence over. It also avoids the possibility of double counting at a portfolio level. For example, if both an energy provider and one of its customers were included in the same index, the emissions of the former would be counted twice. However, as risks may be passed on through the supply chain in the form of higher-priced products and services, it is pragmatic to broaden the analysis to first-tier suppliers. This is advocated by Article 173 of the French Energy Transition Law, which requires market participants to analyse both the direct and indirect emissions of their investments*".

Almost all LCI providers that consider only scope 1 and 2 emissions would exclude utilities, materials production and energy companies as the top carbon emitting sectors from their index, including essentially only financials, tele-communications and information technology. This is because technology and services tend to score the best in terms of scope 1 and 2 emissions. Invariably, **these LCI providers tend to overweight financials and service industries while underweighting the utilities, materials and energy sectors**. As this impact assessment aim to show, such a pure "disinvestment" approach does not amount to a comprehensive response to aligning financial investments with climate concerns.

- *Scope 3 emissions*

The inclusion of scope 3 emissions provides market participants with a more complete picture of companies that – although high in carbon footprint - are contributing to the economic shift from high to low carbon by engaging in significant carbon savings.

Both the Financial Service Board's (FSB) taskforce and Article 173 of the French Energy Transition Law for Green Growth recommend reporting on the positive contribution of portfolios to the low carbon economy. Over time, this disclosure should provide an incentive for markets to move away from fossil fuels and fossil fuel-derived products. Improved disclosure of climate-related opportunities by companies will provide the financial community with decision-useful information to allocate capital more efficiently to those companies that actually reduce scope 3 emissions.

While scope 1 and 2 carbon footprints identify the least emitting companies in an overall index or portfolio, they do not recognize those companies that are contributing positively to the low carbon economy by offering climate-mitigation or adaptation solutions.

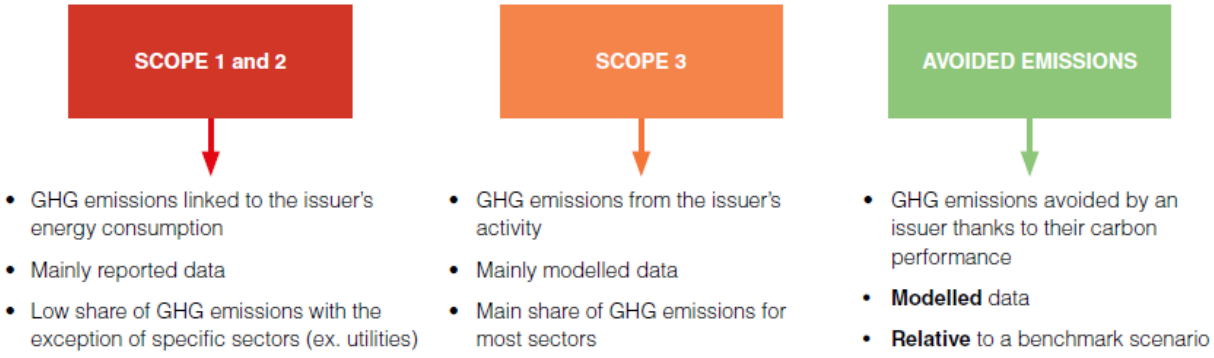
One approach to do this is to quantify the percentage of constituent revenues in an index deriving from climate solutions ("green") which lead to an overall reduction in carbon emissions. For example, a manufacturer of electric vehicles might still have a considerable scope 1 and scope 2 footprint, but when compared to fossil fuel-run internal combustion vehicles, this line of car production will create significant scope 3 emissions savings in the downstream user markets.

The green share revenue metric can help market participants increase their exposure to companies that are contributing to the economic shift from high to low carbon.

- *Avoided emissions*

The concept of "avoided emissions" directly derived from the methodologies that were used in the Clean Development Mechanisms of the Kyoto Protocol. Carbone 4 (2015) defines them as *"“virtual” emissions: emissions which would exist unless the company had actively made an effort to decrease them. Induced emissions already take this decrease into account as compared to the reference scenario. Therefore, subtracting avoided emissions from induced would entail double-counting of these “negative emissions”.* These emissions are generally based on modelled data and should be used in relation with induced emissions.

Figure 15: Scope 1 & 2, Scope 3 Emissions and Avoided Emissions.



Source: Forum pour l'investissement responsible

- *The carbon impact ratio*

Carbon Impact Ratios (CIR) consider both the overall emissions savings that the use of the companies' products entail (avoided emissions) vs their overall carbon footprint, including scope 3 or “induced” emissions:

CIR = avoided emissions / induced emissions

In this context, a positive CIR above 1 denotes a company whose emissions savings are greater than its carbon footprint. A negative CIR below 1 denotes a company whose carbon footprint exceeds any energy savings it can attribute to its products or productions methods.

The low carbon index would comprise around 25 (or hopefully more) companies with a CIR exceeding 1.

In order to properly assess all negative externalities associated with a company's product, the "carbon footprint" of the company would not just comprise CO2 emissions caused by the operation of the company (consumption of electricity, heat, fuel and process leaks), but also indirect emissions linked to raw materials purchased by the company as well as indirect emissions caused by the use of the company's product. This point is essential as limiting the assessment of carbon emissions to direct emissions, underestimates the true impact often caused by the company's suppliers or users (classical example: the environmentally cautious oil major needs also to be accountable for carbon emissions caused by users driving fossil fuel

cars).

The practical results look intuitively correct: the top 5 contributors to carbon emissions, looking at all direct and indirectly induced emissions, are Shell, Total, BP, Siemens and Daimler. But only the first three would be excluded from the CIR index upfront, because both Siemens and Daimler are also the top 5 contributors to energy savings.

The best CIR scores – significantly above 1 – would, however, go to Vestas Wind (CIR = 8), Gamesa Corporacion (CIR = 6.9); Enel Green Power (CIR = 5.8); Kingspan Group (CIR = 5.4) and EDF (CIR=2). This looks intuitively correct as Vestas and Gamesa are low carbon electricity equipment producers, Enel Green Power and EDF are low carbon electricity distributors and Kingspan is a "green" construction and building materials provider.

This ratio can be used as an indicator of forward-looking trend. According to Carbone 4 (2015), a forward looking evaluation will require an analysis of investments and R&D expenditures which will contribute to decreasing carbon emissions in the future, as well as analysis of the firm's positioning and strategy regarding the low-carbon transition. The problem is that companies do not directly report on **the share of their investments and R&D expenditures** that contribute to decreasing GHG emissions.

Box 10: Methodologies adopted by the Commission for calculation of carbon footprint

In 2010 the Commission received a mandate from the European Council to develop two harmonised methods for the calculation of the environmental performance of products and companies along their entire value chain. This request, coming from Member states and supported by many industry sectors, was due to the proliferation of "similar-but-different" environmental labels and certification schemes. This proliferation represented a cost for companies, especially those active in several member states, and contributed to the growth of the misleading green claims phenomenon.

In 2013 the Commission adopted Recommendation 179/2013[146], including the Product Environmental Footprint (PEF) and Organisation Environmental Footprint (OEF) methods. The PEF and OEF methods allow any company to calculate the environmental profile of their products (PEF) or organisation (OEF) along the entire life cycle (from extraction of raw materials to final disposal). The development of these methods was a response to the proliferation of "similar-but-different" environmental labels and certification schemes, which represented a cost for companies, especially those active in several Member States, and contributed to an increase in "greenwashing"[147]. These Commission methods have been developed building on several existing standards (e.g. ISO 14040-44, ISO 14025, WRI GHG Protocol, PAS 2050, and others). Whilst the PEF/OEF methods allow to calculate up to 16 different impact categories (e.g. climate change, water use, land use, acidification, resources depletion, etc), they can also easily be implemented only to calculate a company's or product's carbon footprint.

The two methods have been road tested in a very extensive pilot phase by about 300 companies and trade associations (covering a European market representativeness of about 63% on a consumption basis) from all continents. 23 sectors have been tested, from food and feed production up to energy production systems (PV panels), batteries, construction products, retailers, and many more[148]. The use

[146] One of the Annexes to the Communication "Building the Single Market for Green Products - Facilitating better information on the environmental performance of products and organisations" (COM/2013/0196 final)
[147] The Commission fulfilled the mandate it received in 2010 from the European Council, a request coming from Member States and supported by many industry sectors.
[148] For a complete list of the sectors that participated in the pilot phase, please refer to the dedicated website of DG Environment.

of the OEF method has also been recently recommended by the European Court of Auditors[149].

The European harmonised Environmental Footprint (EF) methods look at emissions in a slightly different way compared to some other carbon footprint approaches. Emissions are not distinguished in Scope 1, 2 and 3 but based on the level of operation control of the company calculating their environmental profile (or carbon footprint only, as appropriate). Therefore, the EF methods identify:

- Foreground emissions due to processes and activities under the direct operational control of the company (more or less equivalent to scope 1 and 2);

- Emissions linked to suppliers on which the company has a limited operational control (often tier-1 suppliers, similar to Article 173 of the French Energy Transition Law);

- Emissions related to processes and activities on which the company has no operational control (scope 3).

The methods allow also to calculate the emissions (taking place or saved) during the use stage of products and those related to their disposal and/or recycling.

The implementation of the EF methods leads to results that are more reproducible, comparable and verifiable with respect to any alternative carbon footprint methodology currently existing. Moreover, the development of common rules at sectoral level, one of the outcomes of the Environmental Footprint pilot phase led by industry in collaboration with Member States, some NGOs and the Commissions in the period (2013-2018), results in studies that are cheaper compared to alternative methods, making the implementation of the methods affordable also for SMEs.

Some stakeholders argue that carbon footprint is not a relevant risk indicator. 2° Investing Initiative explains that "*Even in cases where the scope is relevant, carbon emissions are not necessarily a good proxy to assess the exposure of a company to carbon-related financial risks. These risks are driven by many factors, not only carbon emissions (e.g. new policies, new standards, tax incentives, etc.). In addition, the mitigation of these risks is not reflected through the displayed carbon intensity of a company*."

In this regard, the following tables are quite relevant as they show the lack of correlation between the carbon intensity and the risk level.

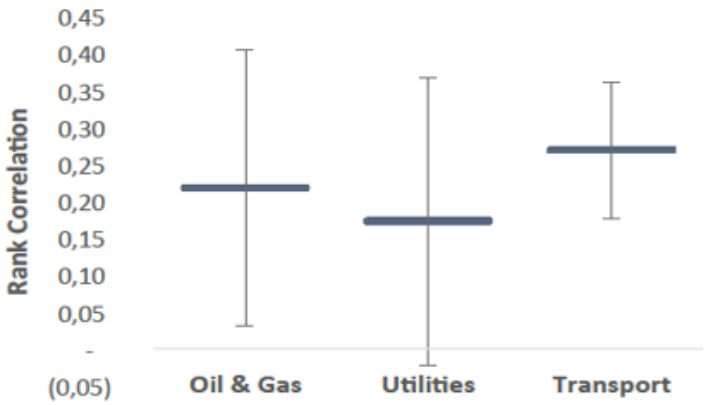
Figure 16: Lack of correlation between carbon intensity and the materiality of climate and environmental risks for credit worthiness at sector level

Risk Level	Sector carbon intensity (■high,■ medium,■ low)
Immediate Elevated	Independent Power Producers, Coal & Consumable Fuels
Emerging Elevated	Steel, Aluminum, Oil & Gas E&P, Construction Materials, Diversified Metals & Mining, Auto Manufacturers
Emerging Moderate	Regulated Utilities, Airlines, Integrated Oil & Gas, Paper, Oil & Gas services, Auto Parts, Gas Utilities
Low	Marine, Diversified Chemicals, Industrial Gases, Marine Ports

Source: Moody's

[149] European Court of Auditors, "How do the EU institutions and bodies calculate, reduce and offset their greenhouse gas emissions?" Special Report No 14, 2014.

Figure 17: Lack of correlation between carbon intensity and value at climate risk according to equity research analysts, at company level within key sectors



Source: 2Dii/Grizzly RI 2015

- *The development of climate-aligned methodologies*

The above methodologies allow for a **bottom-up approach** tailored to evaluate the carbon impact of companies within each sector of activity can be criticised since (a) the methodologies have not yet been standardised, leading to different results, (b) a pure carbon footprint metric does not look at the potential future contribution to CO2 emissions via a company's activities in creating new stockpiles of fossil fuels.

Against this background, some methodologies have been recently developed to tackle these limitations. This trend became more popular after the COP21 and the recommendations of the TCFD to develop scenario analysis. In France, article 173 of the law on *energy* transition and green growth has introduced an innovative reporting approach that essentially requires investors to disclose (on a "comply or explain" basis) how their portfolio selection meets a 2° trajectory. These methodologies are based on scenarios analysis. They intend to reconcile investment roadmaps to the 2°C scenarios of the IEA which focus on the energy, power generation and transportation industries, as well as on certain industrial sectors. The methodologies suggest trajectories (2°, 4°, 6°) and compare them with business-as-usual pathways.

The 2° Investing Iniative, in partnership with 8 institutions **is developing** a free open source **framework for assessing the alignment of an investment portfolio with the 2C climate goal[150].** With the introduction of this methodology/framework, investors can test the alignment of an investment portfolio with various decarbonisation scenarios. It also provides investors with several options **to reach 2°C alignment**: reweighting their portfolio, engaging with large companies to influence their expenditure or asset impairment strategies, extending their universe to clear tech pure players or offsetting their exposure to clean technologies

[150] "Sustainable Energy Investment (SEI) metrics, benchmarks and assessment tools for the financial sectors", financed by the European Commission.

c. The construction of the index

Most LCI are based on comparing their carbon footprint with that of a standard capital-weighted index that represents a broad category of equity investments. For example, for each of its major benchmark indices, S&P DJI produces a family of **lower carbon alternatives**, some of which have been running since 2009. The S&P Carbon Efficient Indices aim to closely replicate the respective benchmarks but index constituents are rebalanced to favour more carbon efficient companies and these carbon efficient indices can reduce the carbon emissions apportioned to an investor substantially, often without significant changes to returns.

Table 3 shows the carbon footprint of S&P DJI's major global equity indices, capturing approximately 70% of global market cap. In the table, the carbon footprint is the aggregation of the direct and first-tier indirect emissions released by each constituent in the index (the precise methods used for accurate carbon foot-printing will be discussed below).

Table 40: Carbon footprint of S&P DJI's major global indices

INDEX	REGION	CARBON FOOTPRINT (TONNES CO2E/USD 1 MILLION INVESTED)
S&P 500 Growth	U.S.	61
S&P 500	U.S.	140
S&P/TSX 60	Canada	166
S&P 500 Value	U.S.	196
S&P Global 1200	Global	199
S&P/ASX All Australian 50	Australia	206
S&P United Kingdom	UK	212
S&P Asia 50	Asia	260
S&P Europe 350	Europe	277
S&P/TOPIX 150	Japan	331
S&P Latin America 40	Latin America	466
S&P/IFCI	Emerging Markets	505

Source: S&P Dow Jones Indices LLC and Trucost. Data as of Dec. 31, 2016. Table is provided for illustrative purposes.

The above table already allows for a series of early observations. The first observation is that the **S&P 500 Growth** index offers the lowest CO2 emissions. This may be explained by the composition of a typical growth portfolio; growth stocks are commonly found in the information technology, telecoms or service sectors, for which carbon emissions tend to be relatively low. The **S&P 500 Value**, by comparison, has over three times the carbon footprint of its growth counterpart—this might be due to value stocks more typically being associated with utilities, materials, or heavy industrial sectors.

The **S&P Latin America 40** is one of the most carbon-intensive indices among those in the above list, again highlighting the relevance of sectoral investment style: the index is significantly weighted toward energy, materials, and utilities companies, which comprise 33% of its total market capitalization. Therefore, funds tracking this index may be highly exposed to carbon-intensive sectors. By contrast, those sectors in the S&P 500 account for 14% of total market cap.

But not all indices allocating a significant proportion of its total weight to energy, materials, and utilities necessarily have a high carbon footprint. For example, the S&P TSX 60 has 33% of its total market cap in energy, materials, and utilities, but it remains the third most carbon-efficient index in the sample group. This demonstrates an important observation that is relevant throughout the impact assessment: while sector exposures are an important starting point, a more careful analysis of individual components (companies) in an index is necessary in determining the carbon footprint. For example, in the S&P Latin America 40, absolute emissions from materials companies are 7.5 times greater than those in the S&P TSX 60.

So while energy, materials and utility companies have a presumption of high carbon intensity, companies in these sectors, employing significant clean technologies to create emissions savings, will have a lower carbon footprint than their peers that do not. These companies will also be responsible for significant emission savings, a phenomenon that LCI construction should take into account.

d. Index weighting

Most currently available **low carbon indices** (LCIs) are based on a simple premise: **overweight index exposure of companies with low carbon emissions and low carbon reserves**. Most LCIs are based on an index provider's parent indices that represent a broad equity universe such as the S&P 500 or the MSCI ACWI. Most low carbon indices are based on equity indices (e.g., MSCI, FTSE, Stoxx or Euronext) although methods would also allow for LCI based on debt issuances. The LCI takes the overall equity universe and selects companies with low carbon emissions or those with low carbon reserves (this is because reserves are considered as reflecting potential future emissions).

In order to determine what constitutes a low level of carbon emissions, index providers do not rely on absolute tonnage of CO2 emission per company, but on a ratio such as carbon emissions relative to sales or carbon emissions per dollar (euro) of market capitalisation. In that way, the provider aims to reflect lower carbon exposure of low carbon index components when compared with carbon exposure of the components in the parent index (MSCI Global Low Carbon Target Indexes).

Some indices take a more radical approach by eliminating all companies that own oil, gas and coal reserves to create so-called "ex fossil fuel indices".

Most LCI providers also segment the universe of investable equity into **high carbon** and **low carbon intensive** sectors. Within this classification, there is consensus that certain sectors are more concerned with carbon emissions than others. A sector is considered a high carbon intensive sector because a given sector contains a multitude of large carbon emitters, but also because it contains a large number of potential emissions savers. Table 1 lists examples of high carbon intensive sectors:

Table 41: Examples of high carbon intensive sectors

Energy sectors	Equipment manufacturers	Intensive carbon emitters
Production and processing of fossil fuel	Energy	Heavy industries
Transport and distribution of fossil fuel	Transport	Real estate
Production of electricity	Building	Transport operations
Transport and distribution of electricity	Other industries	Transport infrastructure
	Information technology	Forest and paper

On the other hand, financials, services and consulting companies, telecoms or information technology companies are classified as low carbon intensive sectors.

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