European
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DG ENERGY

Launch and facilitate the implementation of a new EEFIG working group on "Input on energy efficiency to the emerging EU sustainable finance taxonomy and tagging energy efficiency loans"

N° ENER/C3/FV2018-556/1/FWC2018-464/01

IN THE CONTEXT OF FRAMEWORK CONTRACT N° ENER/C3/2018-464
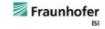
FINAL REPORT

JUNE 2020

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CONTENTS

1   Introduction

This is the final report required under the contract ENER/C3/FV2018-556/1/FWC2018-464/01 for the project 'Launch and facilitate the implementation of a new EEFIG working group on "Input on energy efficiency to the emerging EU sustainable finance taxonomy and tagging energy efficiency loans'

The EEFIG Taxonomy and Tagging Working Group project had two main purposes: provide input to the Technical Expert Group developing the EU taxonomy on taxonomy for sustainable finance; and to review and report on current practices in tagging energy efficiency loans and investments.

The key objectives of the EEFIG Taxonomy and Tagging Working Group project were to:

> Develop an inception report that can be used as initial issues paper for the Working Group.

> Attract and engage experts in the Working Group with relevant knowledge and skills.

> Ensure the smooth functioning of the group, by providing the necessary support to organise their work and help them produce the required deliverables.

> Provide structured input to the TEG and DG ENER in relation to an EU taxonomy for energy efficiency investments.

According to the proposal the final report was intended to include:

> A description of the work carried out;

> Conclusions and recommendations;

> A PowerPoint summary of the Working Group's work;

> Recommendations on the approach that should be used to tag energy efficiency loans.

Consequently, this report follows that format. The Appendices to this report, including minutes of meetings, presentations made at meetings and a summary presentation, have been submitted separately.

1.1   Background

The EU faces a very large challenge in reaching the investment levels needed to achieve energy and climate goals. For the energy transition alone, the EU faces an investment gap of €177 billion of additional investment per year to 2030[1]. The vast majority of this investment will need to come from private business and households and the financial sector has a key role to help steering flows of capital to support the transition towards net-zero emissions.

In 2016 the EC created the High-Level Expert Group (HLEG) on Sustainable Finance to come up with a set of policy recommendations aimed at facilitating the flow of public and private capital towards sustainable investments. The HLEG published its final report, "Financing a Sustainable Economy", on 31 January 2018[2], providing recommendations to the Commission on necessary and appropriate actions to ensure that financial flows are directed increasingly towards sustainable sectors and activities.

In March 2018 the Commission adopted an Action Plan of Financing Sustainable Growth[3], setting out a roadmap with concrete actions to better connect finance with the needs of the economy, for the benefit of the planet and the society. This Action Plan had three main objectives:

> Reorient capital flows towards sustainable investments to achieve sustainable and inclusive growth;

> Manage financial risks stemming from climate change, natural disasters, environmental degradation and social issues: and

> Foster transparency and a long-term outlook for financial and economic activity.

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[1] *Financing a Sustainable European Economy*
EU High-Level Expert Group on Sustainable Finance
https://ec.europa.eu/info/sites/info/files/170713-sustainable-finance-report_en.pdf
[2] ibid.
[3] *Action Plan: Financing Sustainable Growth*
The European Commission
https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018DC0097

One of the actions in the Action Plan, and a main building block was identified as establishing an EU classification system for sustainable activities, referred to as an "EU taxonomy".

The Commission appointed a Technical Expert Group (TEG) to assist in the development of the taxonomy, as well as with the setting up of an EU Green Bond Standard, and metrics allowing the improvement of disclosure on climate-related information.

Energy efficiency investments are an important part of the sustainable activities under consideration as they contribute directly to climate change mitigation. To support the work of the TEG in the field of energy efficiency this project, under Framework Contract No. ENER/C3/2018-464, recruited a Working Group of EEFIG members with in-depth knowledge of the specific aspects and challenges related to energy efficiency. The Working Group was requested to provide structured input to the TEG, based upon an in-depth assessment of existing taxonomies currently used by the financial sector, and the members' in-depth expertise. As energy efficiency impacts all sectors the focus of the group was defined as buildings (e.g. residential buildings, public buildings and commercial real estate), and some energy intensive industries that have a high potential to contribute to climate change mitigation.

The second aspect of the Working Group's work was on tagging of energy efficiency loans and investments. Currently, such loans and investments are rarely identified or tagged as energy efficiency related. This situation makes it difficult to measure total investment into energy efficiency at the macro-level and also prevents assessment of their risks and performance compared to other types of loans and investments. The group was asked to identify current tagging practices in financial institutions and make recommendations for tagging methodologies that are applicable to both existing portfolios and new loans.

To summarise, the key objectives of the project were to:

> Develop an inception report that can be used as initial issues paper for the working group.

> Attract and engage experts in the working group with relevant knowledge and skills.

> Ensure the smooth functioning of the group, by providing the necessary support to organise their work and help them produce the required deliverables.

> Provide structured input to the TEG and DG ENER in relation to a taxonomy for energy efficiency investments.

Section 2 of this report details how these objectives were met.

1.2   Background to EEFIG

EEFIG is an action-oriented platform to collect, develop, implement and disseminate innovative ideas to accelerate finance for energy efficiency in Europe. In the period 2014-2017, there have been two previous phases of the group's work. In its first phase, the EEFIG published its landmark report "Energy Efficiency – the first fuel for the EU Economy"[4]. During the second phase of work, the Derisking Project[5], EEFIG developed two key tools 1) the De-risking Energy Efficiency Platform[6] and 2) the EEFIG Underwriting Toolkit[7] and held 11 plenary meetings in Brussels and Paris.

During the first two phases of EEFIG, the consortium confirmed that:

> Investment decisions are data driven and increased transparency and availability of evidence will reduce transaction costs and facilitate access to finance for energy efficiency investments.

> A common language between financial institutions, energy efficiency project developers and asset owners can be promoted through common underwriting procedures, but training and capacity building will be needed.

> Energy efficiency projects save energy, but also deliver multiple additional economic benefits and value streams. An additional focus on and documentation of such additional value streams has the potential to significantly impact and up-scale positive energy efficiency investment decisions.

> Such multiple benefits appear to include higher resilience and less risk from a balance sheet perspective for greener assets, but a consistent recognition of this by asset owners does not yet exist.

> Energy renovation of the existing building stock due to its materiality and economic impacts is likely to be a key policy focus for Europe for

[4] *Energy Efficiency – the first fuel for the EU economy.*
EEFIG. February 2015.
https://ec.europa.eu/energy/sites/ener/files/documents/Final%20Report%20EEFIG%20v%209.1%2024022015%20clean%20FINAL%20sent.pdf
[5] *EEFIG: The Energy Efficiency De-risking Project*
http://www.eefig.com/index.php/about-the-project
[6] *EEFIG Derisking Energy Efficiency Platform*
https://deep.eefig.eu/
[7] *EEFIG Underwriting Toolkit*
https://valueandrisk.eefig.eu/

the next decade. But underexploited opportunities also continue to exist in the industry/corporate sector.

In this context, the third phase of EEFIG, which commenced in 2018 and runs until 2022 presented an opportunity to:

> Continue the work from the previous two phases (e.g. following up on the recommendations of the first EEFIG report and further developing and disseminating DEEP and the Toolkit)

> Rally market actors

> Support the Smart Finance for Smart Buildings implementation

> Continue to build the EEFIG brand

> Coordinate efforts in the sector

> Foster innovation.

In this third phase of EEFIG the approach taken has been to identify specific work streams and establish Working Groups (WG) made up of EEFIG members for each of them. Each WG is supported by a consultancy team provided by the consultancy consortium.

The first WG established was WG1, "Input on energy efficiency to the emerging EU sustainable finance taxonomy and tagging energy efficiency loans", and it is the work of that WG that this report summarises.

1.3   Background to Taxonomy

In late 2016 the EC appointed the High-Level Expert Group on Sustainable Finance (HLEG) "to provide recommendations to 'hardwire' sustainability into the EU's regulatory and financial policy framework, as well as to accelerate the flow of capital towards sustainable development objectives". The HLEG began its work in January 2017, published an interim report in July 2017 and a final report in January 2018. A key recommendation of the HLEG was to "establish and maintain a common sustainability taxonomy at the EU level". The vision of the HLEG was to establish a taxonomy that:

> provides a shared EU classification of sustainable activities that is applicable to all types of assets and capital allocation

> should be aligned with the EU's declared public policy goals, including implementation of the Paris Agreement and the Sustainable Development Goals

> would provide capital market participants with guidance on the relevance or contribution of specific activities.

In response to the HLEG's proposals the EC set up a Technical Expert Group (TEG) to assist it in developing, in line with the Commissions legislative proposals of May 2018:

> an EU taxonomy to determine whether an economic activity is sustainable

> an EU Green Bond Standard

> methodologies for EU climate benchmarks and disclosures for benchmarks

> guidance to improve corporate disclosure of climate related information.

The TEG commenced its work in July 2018. In December 2018 the TEG published a progress report which contained a first set of climate change mitigation activities and their technical screening criteria, together with a call for feedback on their proposed criteria. The initial task of the WG established by this project was to provide specific feedback to the TEG on its proposals for energy efficiency in for both buildings and industry, covering the mitigation criteria, the proposed energy and emissions metrics, the thresholds and the do no significant harm assessment. Feedback was also obtained on where the proposed criteria could give rise to adverse consequences e.g. risk of stranded assets or the risk of delivering inconsistent incentives, as well as whether or not the proposed criteria could be applied outside the EU.

WG members acknowledged that one factor that hampers the redirection of capital towards more sustainable economic activities is the lack of commonly agreed principles and metrics for assessing if economic activities can be considered environmentally sustainable for investment purposes. Currently financial institutions identify sustainable investments on a voluntary basis using different taxonomies. The EU taxonomy would provide a standardised approach which would reduce costs, provide a common language, appropriate signals, help avoid greenwashing and provide the basis for further policy action.

Within the WG it was further discussed that the definition of sustainability and greenness is subject to assumptions and context and the objective of a taxonomy would be to establish technical criteria allowing selected economic activities to be clearly classified as environmentally sustainable. The Taxonomy is a list of economic activities that are considered environmentally sustainable. It is not a mandatory list of activities to invest in, nor a standard, nor an exclusion list. The taxonomy would provide clarity and transparency on environmental sustainability, enabling informed decision-making in order to foster investments in environmentally

sustainable activities. Energy efficiency is applicable across all sectors and activities, but the main focus of the work on the taxonomy in this project was expected to revolve around buildings and manufacturing.

1.4   Background to Tagging

Tagging is the process of identifying loans or investments as having certain characteristics. Green tagging refers to a systematic process of attaching the environmental characteristics of bank collateral to the loan books of banks, thereby enabling measurement of the environmental characteristics across a portfolio, voluntary or mandatory reporting of those characteristics, and assessment of the risks associated with different environmental characteristics. In the case of energy efficiency for example, tagging would allow comparison of default rates across different levels of residential energy efficiency, thereby answering the question: Do mortgages for energy efficient houses have a different level of risk than those to inefficient houses? In its most applied form, green tagging refers to the creation of a new data field in loan or mortgage records based on Energy Performance Certificates or other energy efficiency indicators, in order to run advanced data analytics to identify the contribution of energy efficiency to default rates, collateral value and credit taker quality. Green tagging therefore enables the matching of sustainable finance data with energy efficiency data through an expedient process suitable for smaller transactions.

The lack of tagging in energy efficiency is a specific obstacle to efforts to increase investment into energy efficiency as a) loans and investments are rarely identified or tagged as energy efficiency related, and b) many loans and investments incorporate an element of energy efficiency improvement even though that is not the main purpose (e.g. an investment in a new production line that is undertaken to improve quality, productivity or output will also bring improvements in energy efficiency). Tagging methodologies should be applicable to new loans as well as existing portfolios. They should be based on existing research, experience and best practices as well as on the taxonomy described above.

Based on a survey[8] conducted by UNEP Inquiry and Climate Strategy, there are five key trends around green tagging:

1   New green business opportunities are a stronger incentive for green tagging than improved risk management for banks. This practice is

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[8] *Green Tagging: Mobilising Bank Finance for Energy Efficiency in Real Estate. Report from the Bank Working Group 2017*
https://unepinquiry.org/publication/green-tagging-mobilising-bank-finance-for-energy-efficiency-in-real-estate/

often led by commercial real estate groups and wholesale finance in banks.

2   While there is no clear definition of "green", energy efficiency and greenhouse gas emissions are the green attributes seen as most material by banks and their stakeholders.

3   The financial case is sufficiently compelling for banks to undertake green tagging without a perfect, multi-annual green performance data history.

4   There is a strong case for connecting green tagging with the links between sustainability factors and prudential regulation, as the inherent risks of non-green assets is not yet a leading driver for banks to implement green tagging.

5   Financial institutions want to continue to investigate the correlations between financial performance in mortgage portfolios and energy performance.

1.5   The role of the WG

The Working Group was established to gather available information on:

>   how energy efficiency is reflected in existing taxonomies

>   what criteria are being used in these taxonomies

>   and where possible, what criteria are used by financial institutions active in the field on energy efficiency financing.

The Taxonomy and Tagging WG provided input to the TEG's work on the taxonomy, providing an additional check on the feasibility and relevance of the TEG's proposals as well as input on the practical difficulties of implementing the taxonomy in relation to energy efficiency.

The Working Group also assessed the appropriateness of the different criteria currently in use, assessed the impact of using different criteria (in terms of reaching the long-term climate and energy EU objectives, but also the impact on the current portfolio of the financial institutions – e.g. to what extent different criteria would impact the share of the portfolio that is considered green). Also, the Working Group provided recommendations on the most appropriate criteria (from the existing ones, or new ones) within the main categories of energy efficiency investments.

Considering the large number of sectors where energy efficiency investments can take place, there was a need to prioritise on those with the highest potential to contribute to fighting climate change, through reducing

energy use. The primary focus of the Working Group was on **energy efficiency in buildings** (e.g. residential buildings, public buildings and commercial real estate), and in some **energy intensive industries** that have a high potential to contribute to climate change mitigation.

Currently, buildings contribute to the European Union's final energy consumption with a share of ~40%, industry contributes another ~25%. Measures relevant from the investor perspective of EEFIG cover all strictly **building related measures** (building fabric, HVAC and lighting projects). Appliances and domestic lighting projects were out of the scope of this working group as they are usually small-scale projects without external finance.

In the energy intensive industries, the investment in the **core process technologies** as well as larger installations such as boilers, ovens, heat recovery systems and on-site power generation are relevant for this assignment. The core process technologies can account for more than 90% of a sector's energy consumption (e.g. in steel, cement and glass production). Other sectors can be more diversified due to their heterogeneous product portfolio (e.g. chemical industry).

Cross-cutting technologies such as motor driven systems were also included in the scope of this Working Group. The level of detail for these technologies had to be chosen carefully, as the taxonomy had to be simple and usable but also precise.

One of the specific obstacles related to energy efficiency financing is that such investments and loans are rarely identified or tagged as energy efficiency-related. There is therefore a need to develop standardised tagging approaches for energy efficiency financing. Tagging methodologies should be applicable to new loans as well as existing portfolios. They should be built on existing research and experiences, and on the unified EU classification system ('taxonomy') aiming at setting harmonised criteria for determining whether an economic activity is environmentally sustainable.

2   Description of the work carried out

2.1   Introduction

Because of the need to move quickly and provide timely input to the TEG it was decided early on that the work of the WG would be essentially divided into two halves; the first half almost entirely focused on Taxonomy to support the TEG and the second half focused on Tagging. This split of tasks was essentially maintained with the WG only really focusing on Tagging after April 2019 when the work of the TEG was expected to be close to completion. The work is further described below.

2.2   Selection of the WG

The first task of the consultancy team was to select members of the Working Group. Because of the timetable of the TEG this had to be done quickly. As it was the first working group of this EEFIG project, the team had to rapidly identify, invite and select members of the WG, both from within the existing membership of EEFIG and outside it. During the recruitment of the WG significant effort was put into communication with financial institutions through UNEP FI. In discussions between the consultancy team and the EC it was decided that the optimum number of members of the WG would be between 20 and 30 which would both ensure diversity of backgrounds and positions, but also enable everyone to provide input. It was also decided that priority for membership should be given to financial institutions rather than other types of stakeholders, such as consultants or trade associations. Also, efforts would be taken to ensure representation from entities with particular interest in industry to offset over-concentration on buildings.

2.3   Meeting schedule

Prior to the first WG meeting, a webinar was held on 9 January 2019, hosted by the UNEP FI. When starting the WG it was specified that there would be four or five meetings. In the end, five meetings were held plus a webinar on 20 January 2020 in which a member of the TEG from RICS updated the WG on progress made by the TEG and the next steps.

The working group meetings were held as follows:

> 29th January 2019. First full meeting which included: setting out the work programme; discussion on the TEG proposals; launching a survey to gather members' views; presentation on tagging.

> 18th February 2019. Feedback from the survey on the taxonomy was presented to the WG by UNEP FI and a discussion of the main issues was held.

> 29th April 2019. Third meeting to respond to the TEG's draft proposals. This meeting included two break-out sessions, one on buildings and one on industry. The work on tagging was also kicked off.

> 2nd October 2019. Fourth meeting focused on tagging with presentations from UNEP FI and EBRD on tagging practices followed by a group discussion. A survey of members and request for case studies was initiated.

> 17th February 2020. Fifth and final meeting. Presentation of results by UNEP FI and case studies from EBRD, Energy Efficient Mortgage project and 2 Degrees Initiative, and further discussion as well as wrap up.

The meetings were held in person in Brussels (except for the first one) and all meetings had dial-in facilities. Attendance at the meetings are listed in Appendix 2.

In the webinar held on 20 January 2020 Fabrizio Varriale from RICS, one of the TEG Buildings Group Convenors, delivered an update on the Taxonomy criteria as developed by the Technical Expert Group at that stage.

2.4   Working methods

Prior to the first meeting of the WG the Inception Report was circulated to inform the WG of the scope and parameters of the project along with links to the TEG draft taxonomy. Meetings were held both virtually and in-person and dial-in facilities were provided at in-person meetings to enable maximum participation. All members of the WG were able to provide verbal and written input capturing their views on the draft taxonomy and tagging practices throughout the project. At the meetings invited members were asked to provide relevant presentations on the work of their institution or specific aspects of the project.

Two surveys were conducted over the course of the project. Following the first meeting an on-line survey was sent out to the WG members setting out the draft taxonomy and the questions asked by the TEG and soliciting comments on each aspect of the draft taxonomy. A second survey requesting examples and case studies was used to develop and inform the tagging aspect of the project. The consultancy team assisted by volunteer members of the WG compiled and presented the results which are summarised in the meeting minutes and presentations. After the final meeting WG members were asked to provide feedback on the final report published by the TEG.

Communication to the WG was through email with a dedicated mailing list. Minutes of meetings were circulated to each member and are shown in Appendix 2.

2.5   Taxonomy work

The initial work of the WG had to be completed in a compressed timeframe because of the fixed timetable of the TEG on the taxonomy. The WG was recruited in early January 2019 and the first meeting was held on 29 January as a virtual meeting. Prior to the first meeting, a webinar was held on the 9th January 2019, hosted by the UNEP FI.

The first meeting of the WG described the work plan and timetable and there was a presentation by HSBC on their approach to tagging, followed by a group discussion on taxonomies and tagging. Specific issues with the TEG proposals were highlighted including:

> A view that the proposals were too harsh for the market

> National differences in building standards

> The difficulty of reaching a 50% savings in some buildings

> Whether embedded carbon should be considered.

It was agreed that the first priority of the WG should be buildings as they were the focus of the first round of feedback requested by the TEG (with a deadline of 22 February). It was agreed that manufacturing would be considered in the second round of feedback (with a deadline in April).

Following the first meeting, an on-line survey was sent out to the WG members setting out the draft taxonomy and the questions asked by the TEG.

Feedback was requested by 8 February to allow the consultancy team time to compile and present the feedback received to the TEG.

A second meeting was held in Brussels on 18 February 2019 and at that meeting the feedback from the first survey was presented and further discussion was held. Key points from the meeting were that:

> There was broad support for the proposed principles for climate mitigation, metrics and no significant harm criteria

> There was a preference for an energy metric in kWh/m^2 over a carbon metric, which would need to be complemented with a relative reduction requirement

> The majority of respondents did not agree with the proposed threshold of 50% for existing buildings but did agree with the thresholds for new builds

> Survey participants noted the trade-offs between a 50% saving threshold, which was more aligned with Europe's 2030 and 2050 objectives but could not be sure to create the necessary transaction volume to further scale up investment into EE, and a 30% threshold which would need updating at a later stage. Most respondents, in particular the financial institutions, preferred a 30% threshold which would evolve in time. Actors such as EuroACE favour an evolution of thresholds over time to higher levels of ambition

> For new buildings some respondents wanted a more ambitious threshold than NZEBs

> The WG also considered that in-use monitoring of energy should be the standard for larger properties and strongly encouraged for smaller properties, including residential buildings

> The consortium team compiled the responses and provided input to the TEG by the deadline of 22 February.

At the third meeting, held on 29 April 2019, two breakout sessions were held on taxonomy, one continuing discussions on the buildings' taxonomy and one on manufacturing. These meetings responded to the draft taxonomy produced by the TEG.

> For manufacturing a range of inputs were received including:

> Proposed metrics related to production processes

> Development of thresholds for manufacturing is more difficult than for buildings

> A technology list may be more useful than specific thresholds or benchmarks

Presentations on manufacturing were made by Climate Action+ and the European Copper Institute. A third breakout session focused on kicking off the work on tagging which included presentations from KfW and AEW/Natixis.

2.6   Tagging work

The heterogeneity of energy efficiency measures in the industrial and commercial sector and the lack of common regulatory standards lends green tagging as bigger a challenge compared to buildings. In addition, given that investments and loans are only seldom identified or tagged as energy efficiency-related, the objectives of the workstream on tagging has been to review existing practices and make recommendations on how to achieve a standardised approach to it.

At the fourth WG meeting UNEP FI provided the participants with a short overview of the report on green tagging which was launched in December 2017 by the UNEP Inquiry and Climate Strategy, emphasizing that there was a strong case to connect green tagging with prudential regulation and sustainability factors. This discussion was followed by a presentation from EBRD on their tagging approach.

Building on the green tagging report launched by UNEP Inquiry together with Climate Strategy in 2017[9], the Consultant team launched a survey which sought to update the information contained in that report by making further linkages with the upcoming EEFIG working group on the financial performance of energy efficient loans. The initial deadline for filling in the survey was Wednesday, 9 October 2019, with an extension of the deadline until Friday, 18 October 2019.

The purpose of the survey was to collect case studies from financial institutions and energy efficiency experts about the evolution of green tagging, whilst at the same time building on the ongoing discussions held within the framework of the EEFIG working group on taxonomy and tagging. Although the focus of this survey was on the real estate sector (in line with the emerging application of green tagging to another EEFIG working group on the financial performance of energy efficient loans), industry was covered as well.

The survey mentioned above included a request for case studies on tagging practices within financial institutions was distributed to 34 organisations and consisted of four main sections:

> coverage (in terms of sectors, countries and financial products)

> data availability and quality

> matching process

> next steps.

14 responses to the request for case studies were received, amongst which 33% from banks, 13% public FIs (including public banks) and 7% from energy services companies (ESCO). 47% of contributions came from other types of organizations such as sector associations.

The case studies collected through this exercise inform the preparation of this report, support the identification of best practices and lead to a set of

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[9] *Green Tagging: Mobilising Bank Finance for Energy Efficiency in Real Estate. Report from the Bank Working Group 2017.*
https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finay tics
ce/documents/200309-sustainable-finance-teg-final-report-taxonomy_en.pdf

recommendations by the WG on how to further advance green tagging. The analysis of results revealed the following findings:

> the purpose of conducting the tagging process is to get asset-level which can then feed into portfolio wide analysis

> most frequently tagged financial products are corporate loans (58%), followed by residential loans (50%) and commercial real estate (33%)

> tagging efforts are focussing on jurisdictions with high quality data

> tagging is used for the purpose of monitoring green performance across financial institutions, for setting targets and risk management

> although respondents rate the energy efficiency data quality as high and perceive the EPC as a useful tool for understanding the energy performance of buildings, the calculated values in EPCs should be complemented by data on actual energy consumption

> data quality from energy audits is also deemed high (in addition to EPC data) in order to assess risks

> the difficulty of accessing EPC databases is perceived as an obstacle to conducting green tagging

> once data from EPC is extracted, the matching of energy efficiency and financial data can be conducted with standard spreadsheet tools

> green tagging is still a manual process (rather than being automated) and considered very labour intensive.

Overall, tagging the mortgage book is a process involving important changes in the IT and lending procedures of financial institutions, with additional constraints around the quality of data which the availability of publicly accessible EPC registries would help alleviate.

At the fifth WG meeting the WG members recommended that the introduction of public Energy Performance Certificate (EPC) databases should be able to help tagging advance faster and process standardization should be considered as a next step. The need to move beyond granular green/non-green definitions in tagging was also stressed. Furthermore, presentations were made on the Energy Efficient Mortgage Initiative (EEMI): the Energy Efficient Mortgage Action Plan (EeMAP) tried to convince banks to get hold of EPC information, as there are multiple benefits associated with renovating the building stock, while the Energy Efficiency Data Portal and Protocol (EeDaPP) would be delivering a market-led protocol that would enable banks to collect data on EE and tag EE thereafter in the products they offer to consumers.

The fourth and fifth WG meetings also included updates and some discussion on the Taxonomy.

2.7   Post WG meetings consultation

In the final stages of the project the WG was invited to provide feedback on the TEG final report[10] directly to the EC. The comments received, stressed inter alia concern about the 30% threshold due to its inadequacy vis-à-vis the 2030 and 2050 targets and the need for dynamic thresholds linked to individual building maps;

2.8   Reporting

In line with the contract the following reports were submitted:

> Inception Report (January 2019) including an overview of existing taxonomies and tagging practices used by the market, the technical criteria to classify energy efficiency as sustainable or green, description of the data collection procedures, the scope of the working group, the profiles of the working group members and a strategy to mobilise the EEFIG community.

> Interim Report (February 2019) including a review of the different approaches to tagging energy efficiency loans and to reflect energy efficiency in sustainable/green taxonomies, and recommendations on the approach that should be used to tag energy efficiency loans.

> Second Interim Report (October 2019) including an updated working plan of the working group for the following 6 months, considering the work of the TEG and their proposals and the minutes of the meetings of the working group held in the first 12 months, as well as the agenda and the eventual presentations from the respective meetings.

> Draft final Report (April 2020) including a description of the work carried out, conclusions and recommendations and a PowerPoint summary. The draft final report was circulated to WG members for comment and input prior to final submission to the EC in June 2020.

> Final Report (June 2020), incorporating the Client's comments to the Draft final report.

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[10] *Financing a Sustainable European Economy. Technical Report*
EU Technical Expert Group on Sustainable Finance. March 2020.
https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finan
ce/documents/200309-sustainable-finance-teg-final-report-taxonomy_en.pdf

3 Conclusions and recommendations

3.1 Introduction

This section describes the conclusions and the recommendations resulting from the project.

3.2 Conclusions and recommendations on Taxonomy

The taxonomy proposed by the TEG would always raise questions and debate. As such it was recognised by the EC and the TEG that the taxonomy would evolve over time rather than be 'set in stone'. Also, it was of course normal that each member of the WG, both as individuals and representing financial institutions and other stakeholders, would have varying views. These views were recorded and passed to the TEG as a complete package rather than edited by the consortium team.

The main conclusions arising from the WG taxonomy work included:

> Account for actual rather than calculated energy consumption in existing buildings (The EU Smart Readiness Indicator can help to bring added value on the real energy consumption of residential buildings)

> For renovation of existing buildings, and new buildings, an absolute energy metric in KWh/sq.m/y was preferred over carbon (and aligned with national legislation) but should be complemented with a relative reduction requirement (e.g. 30% - 50% depending on the country or type of building)

> The majority of respondents did not agree with the proposed thresholds of 50% for existing buildings but do agree with the thresholds for new builds

> For construction of new buildings, respondents broadly support the use of NZEBs as a basis

> EPCs are a necessary basis for measuring performance of existing buildings despite problems with them. The calculated results of EPCs should be complemented by actual energy consumption data.

During the course of the project the Taxonomy evolved following input from the WG and of course many other stakeholders. Specifically metrics

changed to a per centage of Primary Energy Demand resulting from NZEB requirements from an EPC classification. Similarly the metric for acquisition and ownership of existing buildings was changed to a requirement to be in the top 15% of the local existing stock in terms of Primary Energy Demand, as opposed to an EPC of B.

3.3   Conclusions and recommendations on Tagging

Despite being acknowledged by the EC that the output of this working group has been mainly focussing on the taxonomy side, important progress has nonetheless been achieved on tagging. Below are the main conclusions arising from this work stream:

> Tagging is primarily driven by the need for asset level data – to then obtain portfolio wide information

> Corporate loans are more frequently tagged, followed by residential and then commercial real estate – FIs focus on transactions with the largest ticket sizes first

> EPCs are a useful tool for understanding energy performance, even though energy consumption data is still considered necessary; tagging is usually focussed on jurisdictions with excellent data availability.

> Green tagging is still a manual process and the process is considered very labour intensive by the FIs.

3.4   Conclusions and recommendations about WG process

The recruitment of the WG was expedited because of the need to meet the timetable of the TEG. However, in the end an appropriate membership of the WG was achieved and the necessary haste at the beginning did not impact on the quality of the output thanks to the efforts and flexibility of the WG members. For future WGs it is recommended that a limited number of specific criteria for WG membership are identified in advance and applications to join a WG are scored against the criteria on a simple 1 to 3 or 1 to 5 scale. This process will always have an element of subjectivity but important criteria such as representing a financial institution as opposed to a non-financial institution need to be taken into account whilst ensuring the working groups have access to all relevant skills.

The process of meetings, both virtual and in-person with dial-in facilities worked well. The first meeting had to be virtual due to the time constraints, but other working groups should when feasible start with a physical meeting to better facilitate exchange of information and views.

The use of surveys worked well and where appropriate should be encouraged.

The process of encouraging input from WG members was successful. The consultancy teams running other WGs need to ensure that the whole WG is given time and the opportunity to provide input. The use of WG members as rapporteurs should also be encouraged. Overall the approach should be that the consultancy team is there to facilitate and enable the WG members to undertake the work, rather than for the consultancy team to be doing most of the work.

3.5   Proposals for additional work

The TEG's final report was published in March 2020.

The EU taxonomy is an evolving standard and therefore it may be appropriate to revisit the taxonomy work and identify areas that could be changed in response to market developments, as well as new areas for study. This, however, will be driven by the underlying process adopted by the EC for updating the taxonomy. The WG was invited by the EC to comment on the final report after the fifth meeting and the Consultant team communicated this to the WG.   Feedback clarifying some points about the savings targets and the need for dynamic targets and links were received, including the importance of individual building roadmaps.

EEFIG could act as an advisory group to provide input to any problems or questions raised during the implementation of the taxonomy. It could also help to develop technical criteria in other areas related to energy efficiency reporting within specific sectors, such as manufacturing. Another aspect to work on could be the social costs/benefits of energy efficiency and how these could be incorporated into an upgraded DEEP database.

Regarding tagging, the following additional work is recommended:

> Introduce public EPC databases in more European countries. Currently only some countries have publicly available EPC databases and greater access to the data would assist financial institutions in tagging energy efficiency loans. Data access could be limited to trusted counterparties such as financial institutions. This work would need to be country specific.

> It is important that green tagging efforts are aligned with the sustainable finance taxonomy. Methodologies for doing this will need to

be developed and a standardised common approach would be beneficial. EEFIG could work with financial institutions to develop a methodology to align tagging practices with the taxonomy.

> A standardised, open-source system for recording building physical data such as floor area, building type, location etc., as well as actual energy consumption over time should be developed. This would enable all users, including financial institutions to access portfolio data and anonymised data from other users to enable comparison of performance and risk assessment of energy efficiency loans. This should be undertaken in the framework of the EPC database and overview of the building stock prepared by member states for their long-term renovation strategies. To make such a system inter-operable and usable by many stakeholders, subject to appropriate security processes, it would need to be based upon a common dictionary of terms as was developed by the US Department of Energy for its SEED (Standard Energy Efficiency Data) platform.

> Process standardization for tagging is seen as crucial next step. EEFIG could work with financial institution stakeholders to develop guidelines for tagging standardization.

> Projects receiving public support from the EC or Member States should require on-going measurement of energy performance in a form that aligns with the Taxonomy and supports tagging initiatives.

> Public banks and financial institutions should play a leading role in implementing the Taxonomy and the use of green tagging.

> Public banks and financial institutions should utilise the DEEP database and drive its development to make it more useful to financial institutions.

> Periodic revision and further development of the taxonomy for buildings and manufacturing

> Assist companies in their disclosure obligations under the Directive 2014/95/EU (NFRD) via the development of templates and capacity building

> Develop buildings and manufacturing taxonomy tools to enable the criteria and performance data integration into data systems and reporting

4   PowerPoint summary

A PowerPoint summary of this report is included in Appendix 4.

5   Appendixes

The following Appendixes have been provided as separate files.

Appendix 1. Agendas of meetings (x5)

Appendix 2. Minutes of meetings (x6)

Appendix 3. Presentations (x6)

Appendix 4. Presentation summarising final report.

Appendix 1. Agendas of meeting

Appendix 2. Minutes of meetings and webinar

Appendix 2 contains the minutes of all meetings and the webinar.

Due to file size limitations minutes of the meetings have been sent as separate files.

Appendix 3. Presentations

Appendix 3 contains six presentations made at WG meetings.

Due to file size limitations presentations have been sent as separate files.

Appendix 4. Presentation summarising final report

Appendix 4 contains a presentation summarising the final report.

Due to file size limitations presentations have been sent as separate files.