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# **Navigating the EU Taxonomy: Implementation Challenges and Risks of Non-Compliance**

Why is nothing happening?

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Property Development

## **Preface**

This master's thesis was written as part of the master program of Property Development at the Norwegian University of Life Science in the period between January and May 2024. This period has allowed me to dive deep into the topic of the EU Taxonomy and explore its consequences for Norwegian Property developers.

The work with the thesis has been a great period of learning. It has allowed me to combine my competence from the master's programme with prior technical competence from my degree in Architecture.

I would like to express gratitude to my supervisor Erling Dokk Holm. Erling has been a dedicated supervisor, offering good discussions and advise during throughout the spring semester.

Further, I want to thank the respondents dedicated time to share their valuable insights from the industry.

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## **Abstract**

The EU Taxonomy for sustainable activities is a classification system for sustainable activities established by the EU in 2020 as part of their sustainable finance strategy. The aim is to direct capital towards green investments and activities essential for achieving the environmental targets in the European Green Deal and the Paris Agreement. This is done by establishing certain sustainability criteria economic activities must align to be classified as sustainable. The scope of this study is the economic activity of renovating existing buildings.

This thesis investigates methodologies and strategies that property developers can employ to align renovation projects with the EU Taxonomy. The scope of the study is limited to the Norwegian office market. To address the problem statement, a method triangulation was applied. The research methodology encompassed a literature review, qualitative interviews, and the application of a theoretical framework.

A total of 14 in-depth interviews were conducted: eight property developers, three interest organizations, two financial advisors and a legal advisor. The theoretical frameworks of institutional theory (North, 1990) and the complimentary theory of institutional isomorphism (DiMaggio and Powell, 1983) were employed to understand organizational responses to the EU Taxonomy.

The study resulted in four key findings: (1) There is an apparent lack of clear implementation strategies for the EU Taxonomy in renovation projects among prominent Norwegian property developers. The study exposed a disparity between a minority who had adopted a proactive approach, and a majority who maintained a defensive stance. This suggests a lack of enforcement power in the EU Taxonomy for renovation (2) The incentives for aligning the taxonomy for renovation do not necessary justify the required investment, raising questions about the economic benefits of compliance (3) Early preparation for alignment and the use of available tools and reporting services are effective strategies for facilitating alignment with the taxonomy criteria (4) The behaviour of property developers in response to the EU Taxonomy can be explained through the lenses of institutional theory and institutional isomorphism. These frameworks contribute to an understanding of how industry standards and regulatory enforcement shape organizational behaviour.

## **Sammendrag**

EUs taksonomi for bærekraftig økonomisk aktivitet er et klassifiseringssystem for å fremme bærekraftige aktiviteter. Taksonomien ble iverksatt av EU i 2020, som en del av strategien deres for en mer bærekraftig finans. Målet med taksonomiordningen er å kanalisere kapital til bærekraftige aktiviteter og prosjekter, i tråd med EUs Grønne giv og Parisavtalen. Dette blir gjort ved å etablere kriterier som økonomiske aktiviteter må følge for å kunne klassifiseres som bærekraftige.

Oppgaven undersøker metoder og strategier eiendomsutviklere kan benytte for å effektivt oppnå kriteriene i EUs taksonomi for renovering av bygg. Oppgaven er avgrenset til det norske kontormarkedet. Metodetriangulering er benyttet for å besvare problemstillingen. Metoden i oppgaven omfatter en litteraturgjennomgang, kvalitative intervjuer, og bruk av et teoretisk rammeverk.

Det ble foretatt totalt 14 dybdeintervjuer, hvorav åtte eiendomsutviklere, tre interesseorganisasjoner, to finansielle rådgivere og en advokat ble intervjuet. Det teoretiske rammeverket av institusjonell teori (North, 1990), og den komplementære teorien om institusjonell isomorfisme ble anvendt for å forstå den organisatoriske repsonsen av EU taksonomien.

Oppgaven resulterte i tre hovedfunn: (1) Det er en tydelig mangel på klare implementeringsstrategier for EU taksonomien for rehabilitering av bygg blant fremtredende norske eiendomsutviklere. Studien avdekket en stor forskjell mellom en minoritet en minoritet som med en proaktiv tilnærming til taksonomien, og en majoritet med en mer avventende tilnærming. Dette antyder en manglende håndhevingskraft i EU taksonomien. (2) Incentivene for å oppnå kriteriene i taksonomien for rehabilitering rettferdiggjør ikke nødvendigvis investeringen, noe som reiser spørsmål til den faktiske gevinsten av samsvar (3) Tidlige forberedelser og bruk av tilgjengelige verktøy og rapporteringstjenester ble identifisert som effektive tiltak for oppnåelse av taksonomikriteriene. (4) Eiendomsutviklerens respons på EU taksonomien kan forklares gjennom institusjonell teori og institusjonell isomorfisme. Disse teoretiske rammeverkene bidrar til forståelsen av hvordan bransjestandarder og håndhevelse av regler former organisatorisk adferd.

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## Terms and definitions

*CSRD* = Corporate Sustainability Reporting Directive

*EEA* = European Economic Area

*EU* = European Union

*EU Taxonomy* = “a classification system that defines criteria for economic activities that are aligned with a net zero trajectory by 2050 and the broader environmental goals other than climate.” (European Commission, n.d-b).

*Green loans* = A loan with more advantageous conditions than similar non-green loans, provided to projects that contribute to sustainable development in its specific green qualities (DNB, n.d).

*Grandfathering* = Grandfathering, or a grandfather clause, refers to a clause that let individuals or entities maintain previously approved practices despite new regulation or laws. These exemptions may be permanent, temporary, or subject to restriction (Kenton, 2023).

*Green Asset ratio* = A financial metric used by banks and other financial institutions to measure the proportion of their investment activities that in projects aligning with the EU Taxonomy, as a proportion of the total balance sheet (Meld St. 12 (2021-2022), p. 96).

*Greenwashing* = “The practice of giving a false impression of the environmental impact or benefits of a product, which can mislead consumers” (European Parliament, 2024).

*Sustainability* = Defined by the Brundtland Commission in 1987 as something that “meets the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations, n.d).

# 1. Introduction

## 1.1 Introduction

The European Union aims to become carbon-neutral by 2050 and reduce emissions by 55% by 2030 emission. A key part of this strategy involves reducing the energy demand of existing buildings in Europe, a strategy the EU has called the `renovation wave`. The EU have set as a goal to renovate 35 million inefficient buildings in Europe by 2030 (European Commission, 2020, p.1).

The objective of this thesis is to explore how property developers can implement and align with the EU Taxonomy for renovation of existing building in a Norwegian context. The EU Taxonomy is a classification system established by the EU, as part of their sustainable finance strategy. The EU Taxonomy framework was created to aid companies and investors in identifying sustainable economic activities that contribute to EU's climate and environmental objectives. The framework consists of a set of sustainability criteria for specific economic activities. The framework is not mandatory for businesses to align, nor a criterion for investors to invest, but it is anticipated that it will drive a gradual shift towards sustainability over time (European Commission, n.d. -c).

The study seeks to identify potential challenges encountered during the implementation process, and strategies that developers can employ to overcome them. To achieve this objective, the research involves conducting interviews with a group of larger property developers operating in Norway's metropolitan areas, knowledgeable interest organizations and experts on the taxonomy within law and banking.

A comprehensive understanding of the framework established by the European Commission is crucial for discussing the implementation of the EU Taxonomy. Therefore, this thesis will start by outlining the intent and background of the taxonomy system, its operational functionality, and explaining its enactment in Norwegian Law.

## 1.2 Background

The EU has established a taxonomy classification system as a tool to support the objectives delineated within the European Green Deal to help meet the sustainability benchmarks for the year 2050, as stipulated in the Paris Agreement (European Commission, n.d.-e). The European Green Deal is a policy initiative constructed by the EU with the overarching goal of making Europe the first climate-neutral continent by 2050, by fostering a more sustainable and competitive Europe (Miljødirektoratet, n.d.). The EU green deal encompass the goals of the Paris Agreement (European Commission, n.d.- d). The Paris Agreement, ratified in 2015 in Paris, France, is an international treaty that binds signatories to climate change mitigation, adaptation, and finance objectives aimed at limiting global warming (Jakobsen et al., 2015).

By establishing the Taxonomy for Sustainable Finance, the European Parliament seeks to direct capital towards green investments and activities essential for achieving the environmental targets in the European Green Deal. Their intention is that the EU Taxonomy will support the transition to a sustainable economy in Europe, adhering to and addressing six sustainability principles illustrated in Figure 1 (European Commission, n.d.-b). The taxonomy is envisioned to foster greater investment transparency, by establishing a common language and criteria for what qualifies as a sustainable investment within the European Union and European Economic Area (European Commission, n.d.-b).

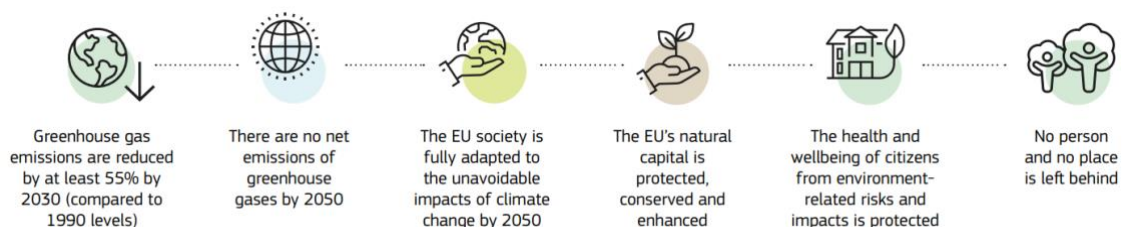


Figure 1: *Six environmental objectives following the European Green Deal*, n.d.-e, by European Commission. (<https://ec.europa.eu/sustainable-finance-taxonomy/>)

By establishing a universal definition of sustainability, the European Union aims to assist investors in identifying genuinely sustainable investments. This effort intends to make the abstract concept of sustainability more tangible and provide investors with a reliable metric for assessing the sustainability of their investments, thereby safeguarding against

the risk of greenwashing. Through the taxonomy, the EU facilitates a more secure investment environment by ensuring clarity and accountability in sustainability claims. It aims to accelerate funding of projects that requires a sustainable transition, as well as projects that already are (European Commission, n.d.- b).

### **1.3 Previous research**

An initial review was conducted in the fall of 2023 to explore what previous research had been conducted on the implementation of the EU Taxonomy. The review revealed that the topic of EU Taxonomy has been explored by several students since it was enacted in the EU in 2020 but demonstrated a lack of research on specific methods for implementation, especially on the renovation of existing buildings criteria. Research especially relevant for this study is presented below.

Herud & Bye (2021) evaluated the impact of the EU Taxonomy on the office market, looking at whether it will lead to a split in value between “green” and “brown” office buildings in market. They observed that sales and rental prices were higher for office buildings with A and B energy ratings. Their study details the financial cost of turning a brown office building green. They found that despite a higher rental income for green buildings, and lower maintenance costs, a high investment cost could render upgrades unprofitable (Herud & Bye, 2021).

### **1.4 Purpose of the study and problem statements**

The introduction of this thesis emphasizes the critical role that renovation of existing buildings achieving the sustainability targets stipulated in the Paris Agreement. The literature review conducted in the fall of 2023 revealed that there is a gap in studies focused on the practical implementation of the EU Taxonomy in renovation projects in Norway.

Consequently, the primary purpose of this master’s thesis is to explore concrete methodologies and strategies for property developers to implement the taxonomy in renovation of existing office buildings in Norway. With this aim, the study might reveal

relevant obstacles in the implementation process, which can assist property developers planning on implanting the EU Taxonomy for renovation in the future. This led to the following problem statement for the thesis:

*What specific measures can property developers take to ensure efficient implementation of the EU Taxonomy for renovation of existing buildings in office renovation projects?*

## **1.5 Research questions**

To address the problem statement, six research questions have been formulated:

Research question 1: *How does compliance with the EU Taxonomy in renovation projects affect the economic and environmental results for property developers?*

Research question 2: *How does compliance with the EU Taxonomy impact the real estate value and market appeal for renovated office buildings?*

Research question 3: *What role does the potential of green loans play in supporting compliance with the EU Taxonomy for renovation projects?*

*What tools are property developers currently using to facilitate implementation of the EU Taxonomy?*

Research question 5: *What will happen to the existing certifications systems if the EU Taxonomy becomes dominant?*

Research question 6: *What are the consequences for property developers who choose not to comply with the EU Taxonomy?*

## **1.6 Scope definition**

The problem statement sets the stage for a broad and comprehensive discussion, underscoring the necessity of a clearly defined scope.

The thesis will concentrate specifically on the EU Taxonomy for renovation of existing buildings in Norway. Within the renovation scope, the focus will narrow further to the renovation of office buildings within the Central Business Districts (CBD) of Norwegian metropolitan areas.

Focusing on the implementation of the EU Taxonomy in Norway, the thesis will interpret Norwegian legislation of the taxonomy. As the subject of the thesis is the practical implementation of the taxonomy for property developers, this thesis will only briefly describe how EU laws are transposed into Norwegian law through the EEA but will not extend deeply into a detailed examination of the EEA legal system itself.

Furthermore, the EU Taxonomy regulation is part of a larger, complex system of regulations and directives. The thesis will primarily concentrate on the taxonomy itself and only briefly discuss its connection to related directives, such as the Corporate Sustainability Reporting Directive (CSRD) and the Sustainable Finance Disclosure Regulation (SFDR), without delving into extensive detail about the function of these.

The thesis will examine how property developers operating within the CBD can implement the EU Taxonomy in renovation of existing buildings. Subsequently, only property developers operating within these areas are interviewed. This has probably affected their perspectives. The specific focus has allowed for an in-depth exploration of practical applications and challenges of the EU Taxonomy within the defined context.

## 1.7 Structure

The thesis is divided into 8 chapters: introduction, theory, method, findings and analysis, discussion, conclusion, references, and appendix.

- Chapter 1*      **Introduction.** The first chapter will introduce the thesis, the problem statement and research questions.
- Chapter 2*      **Theory.** The second chapter will present relevant theory for the thesis.
- Chapter 3*      **Method.** The third chapter will explain and discuss the research method used for this thesis. It will also discuss the science design, selection criteria, methods used for interviews, and other ways of data collection.
- Chapter 4*      **Findings and analysis.** The fourth chapter will present the findings from the interviews.
- Chapter 5*      **Discussion.** The fifth chapter will provide discussion on the problem statement and research questions, as well as a guide for implementation of the EU Taxonomy.
- Chapter 6*      **Conclusion.** The sixth chapter will provide a conclusion, final remarks, and suggestions for further research.
- Chapter 7*      **References**
- Chapter 8*      **Appendix**

## 2. Theory

This chapter will introduce the theoretical frameworks essential to address the problem statement:

*What specific measures can property developers take to ensure efficient implementation of the EU Taxonomy for renovation of existing buildings in office renovation projects?*

Theories provide abstract, complex understandings of how society works, for example how behaviour in society changes or organizations interact with each other. This can be done by interpreting research data through a theoretical `lens` (Reeves et al, 2008). Institutional theory and institutional isomorphism will be presented as conceptual frameworks for discussing the problem statements and research questions. The study will interpret the research data through the theoretical lens of these theories, to place the findings in a broader context, and provide explanations of property developers behaviour in response to the EU Taxonomy.

This chapter will furthermore explain the framework of the EU Taxonomy regulation, and its relationship to other relevant directives. Lastly, this chapter will present formal and informal sustainability certifications relevant for the later discussion.

### 2.1 Institutions and organizations

In *Institutions, institutional change, and economic performance*, released in 1990, Douglas North provides a comprehensive analysis of how institutions orchestrate societal progression over time. North uses the analogy of a game, with a rule- maker and participants, to explain how the entities interact and shape economic outcomes over time (North, 1990, p. 3).

North defines institutions as “*the rules of the game in a society or (...) the humanly devised constraints that shape human interaction*” (North, 1990, p. 3). In other words, he explains institutions as the rules of how society can “play”. Institutions encompass any type of constraints made to direct human interaction (North, 1990, p. 4). They can be both



formal and informal. Formal institutions in society can typically be a regulation from the government, or a legislation enacted by the EU. Informal rules can be codes of behaviour or conventions (North, 1990, p. 4). EU Taxonomy can be regarded as a formal institution in this context.

North describes organizations as “groups of individuals bound by some common purpose to achieve objectives” (North, 1990, p. 5). An organization can encompass political bodies, economic bodies, social bodies, and educational bodies (Ibid). An economic body can be, as relevant for this thesis, a property development company, or a bank.

The sports analogy of a game is being used to explain how institutions, and the level of enforcement of these, shape way “the game” is played in a society. Institutions are described as being the underlying rules of the game. The players are the organizations and will change to become “winners” in the institutions. Much like a game of soccer, some teams can win because of constantly violating the rules. The success of this strategy will depend on the enforcement of the rules – whether they are monitored and punished. Sometimes the code of behaviour is adequate to constrain the players (North, 1990, p. 4). In turn the organizations will also contribute to shape the development of the institutions (North, 1990, p. 5).

## **2.2 Mechanisms of organizational change**

Continuing the discussion of how organizations are shaped by external structures, the following chapter will introduce the theory of institutional isomorphism. Where North (1990) explains how formal and informal institutions establish the overarching framework or “rules” for societal and economic behaviour, the following theory will provide a more granular understanding of how organizations adapt to these rules. It will detail how organizations conform to institutional norms and expectations, providing a deeper insight into the interplay between institutional forces and organizational behaviour.

Changes in organizational behaviour can be explained through the mechanisms that controls it. DiMaggio and Powell (1983) explore the mechanisms of organizational

change through the concept of isomorphism. Isomorphism is a concept explaining the notion that organizations within the same industry become increasingly similar in their behaviour over time (DiMaggio & Powell, 1983, p 147). They identify three processes leading to isomorphic change:

- (1) The first is *coercive* isomorphism. Coercive isomorphism occurs when organizations conform to pressures from external forces such as government mandates, legal requirements, or the influence of other powerful organizations. The pressure that leads to change in the organization can stem from force (like adhering to new laws) or from a wish to appear legitimate. (DiMaggio & Powell, 1983, pp 150-151).
- (2) *Mimetic* isomorphism occurs when organizations copy the practices of other organizations in their field that they perceive as more successful. The imitation occurs as a response to uncertainty in the organization, which can be caused by ambiguous goals, an uncertain environment, or when meeting a problem with uncertain solutions. Mimetic processes can also happen unconsciously in an organization, for example through the advice of external consultants. Consequently, organizations may model other organizations in their field that they perceive as more successful, either consciously or unconsciously, from a desire to appear legitimate (DiMaggio & Powell, 1983, p. 151-152).
- (3) *Normative* isomorphism is the third process identified to lead to isomorphic change and arises from professionalization and the associated norms that come with professional standards and training. In this context, professionalization is described by DiMaggio & Powell (1983) as the collective efforts by professionals within a specific field to determine and set the standards, conditions, and methods of their work (DiMaggio & Powell, 1983, p. 152).

## **2.3 The EU Taxonomy**

### **2.3.1 General**

The EU Taxonomy, enforced in the EU on the 12th of July 2020, is a classification system made to evaluate the sustainability of economic activities (European Commission, n.d-b). It establishes specific criteria that economic activities must satisfy to be recognized as sustainable. The criteria are sector specific, and all businesses of a certain size must report

on them. A reporting directive called the Corporate Sustainability Reporting Directive (CSRD) sets out the criteria of what companies must report on the taxonomy (European Commission, n.d-c). The relationship between the CSRD and the taxonomy will be discussed further in point 2.3.2.

Companies subject to the CSRD must annually report the extent to which their economic activities classified in the EU Taxonomy (taxonomy-eligibility), meet the criteria established for those specific activities in the EU Taxonomy delegated acts (Taxonomy-alignment). An important note is that companies that fall under the scope of the CSRD are not obligated to *meet* the criteria in the EU Taxonomy, only to report on them (European Commission, n.d-c).

The economic activity can for example be an investment, or renovation of a building. The taxonomy can be strongly simplified into three steps. Within each activity listed, there are four steps of criteria that all must be met to align with the criteria. (1) The activity must make a “substantial contribution” to one out of six environmental objectives, while (2) doing no significant harm to the other five environmental objectives, (3) comply with a set of minimum safeguards and comply with a set of technical screening criteria for step 1 and 2 (European Commission, n.d-c). The steps are illustrated in Figure 2.

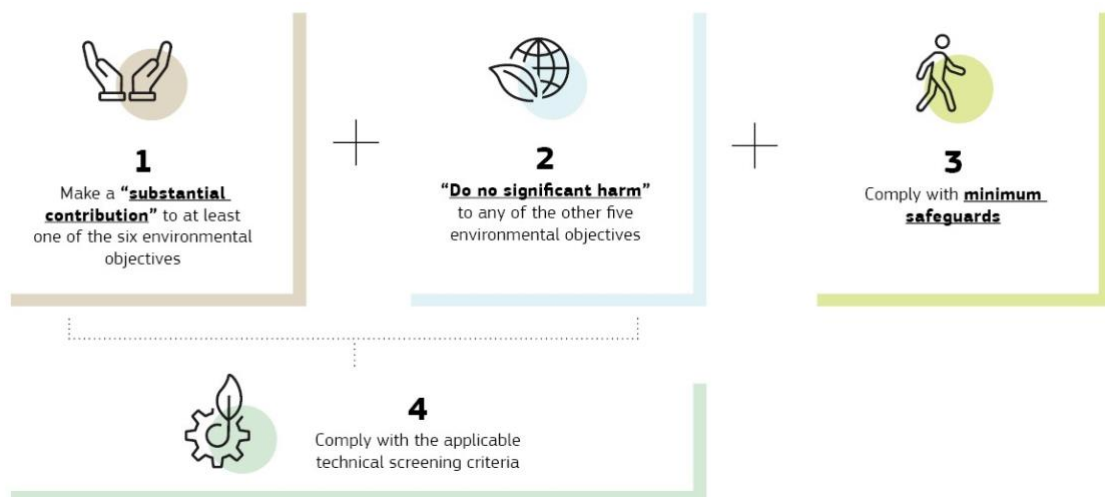


Figure 2: *The four steps of EU Taxonomy compliance*, n.d-f, by European Commission (<https://ec.europa.eu/sustainable-finance-taxonomy/>)

The real estate and construction sector are covered by seven categories of the taxonomy. The seven categories are illustrated in figure 3. The scope of this study is the EU Taxonomy of renovation, point 7.2. A detailed description of how to achieve alignment with the taxonomy for renovation of existing buildings (7.2) will be provided in chapter 5.2.

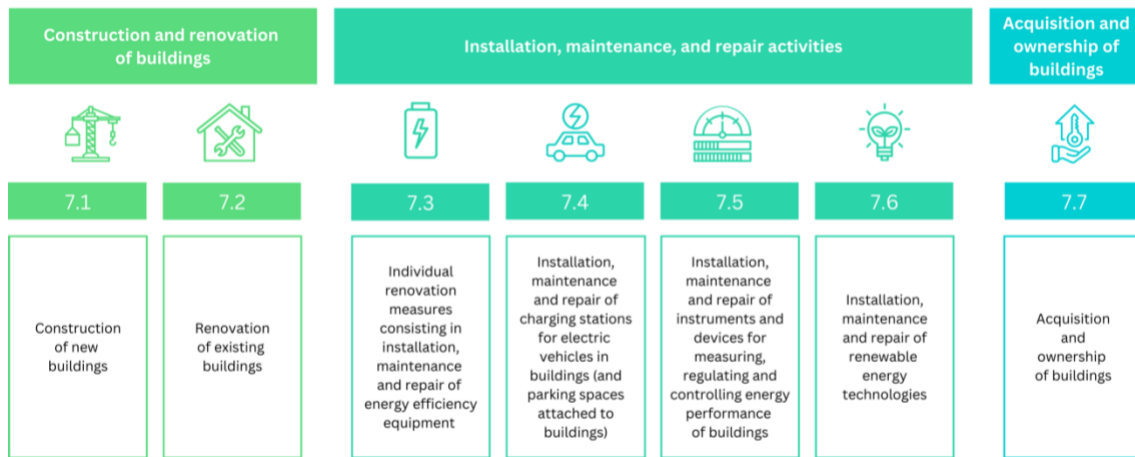


Figure 3: Key EU Taxonomy Economic activities for Construction and Real Estate, 2023, Envoria. (<https://envoria.com/insights-news/what-does-the-eu-taxonomy-mean-for-the-construction-and-real-estate-industry>)

### 2.3.2 Ordinance with other directives: CSRD and SFDR

The EU Taxonomy classification system was created by the EU to work together with the Corporate Sustainability Reporting Directive (CSRD) and the Sustainable Finance Disclosure Regulation (SFDR). The three complement each other in a system, creating a framework to direct investments towards taxonomy-aligned activities (Barral, 2023).

Where the EU Taxonomy helps investors to identify sustainable activities, the CSRD decides how companies are supposed to report on the taxonomy (European Commission, n.d-c). The CSRD was effective in the EU from 5 January, 2023, replacing the non-financial reporting directive (NFRD). The CSRD is designed to create a more coherent and standardized system for companies to disclose their ESG impacts, extending the reporting requirement to encompass their entire value chains. Furthermore, it aims to minimize inconsistencies and information gap, facilitating an easier comparison of

companies' sustainability performance. The CSRD aligns with the EU Taxonomy and the SFDR in making a streamlined ESG reporting system for companies (Barral, 2023).

The SFDR, in Norwegian *offentliggjøringsforordningen*, is incorporated in Norwegian Law by *Lov om offentliggjøring av bærekraftsinformasjon i finanssektoren mv.* (Lov om offentliggjøring av bærekraftsinformasjon i finanssektoren mv., 2021, §§). The SFDR is designed to provide transparency in sustainable investments, obligating all financial advisors to provide a report on how the sustainability risk in their investments (Grønn Byggallianse, 2024, p.17). This way, the SFDR is also aiming to fight greenwashing, as the transparency ensures investors are not misled (Barral, 2023).

The reporting system is illustrated in Figure 4.

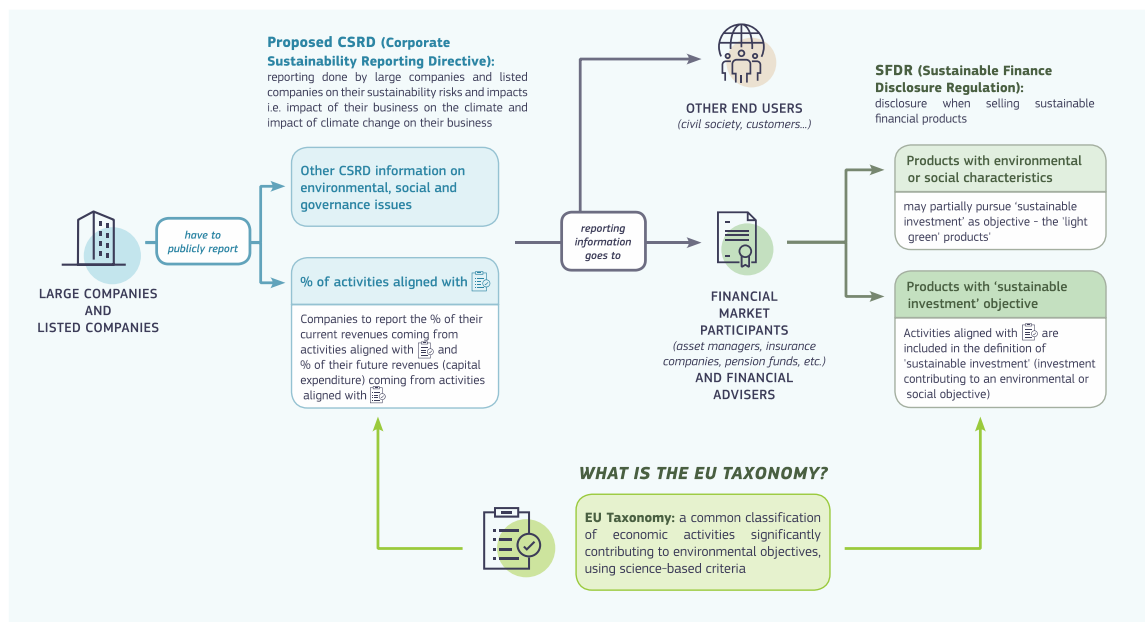


Figure 4: The relationship between the CSRD, EU Taxonomy, and SFDR, n.d-g, European Commission. ([https://commission.europa.eu/system/files/2021-04/sustainable-finance-taxonomy-factsheet\\_en.pdf](https://commission.europa.eu/system/files/2021-04/sustainable-finance-taxonomy-factsheet_en.pdf))

The interconnection among these three regulatory frameworks can be summarized by noting that following: the EU Taxonomy Regulation specifies criteria for identifying economic activities deemed sustainable. The SFDR sets out the guidelines for financial market participants regarding the disclosure of information. Meanwhile, the CSRD defines the entities that fall under the reporting mandates of the Taxonomy regulation, making it a key piece for the taxonomy's implementation (Birkelund, 2023).

### 2.3.3 The EU Taxonomy in the domestic Norwegian legal order

The EU Taxonomy was transposed into Norwegian legislation by way of Section 3 of *Lov om offentliggjøring av bærekraftsinformasjon i finanssektoren og et rammeverk for bærekraftige investeringer*, which entered into force in 2023. Norway is – as a signatory to the 1994 Agreement on the European Economic Area (EEA Agreement), cf. *EØS-loven* § 1 (EØS-loven – EØS1, 1994, §1) obliged to incorporate every EU legal act which is relevant to the functioning of the EEA Agreement, cf. Article 1 (2) EEA. The key principle underlying the EEA is homogeneity: the ultimate objective is that same rule applies in all 30 EEA states, enabling a transboundary single market.

Put simply, the incorporation of EEA law into Norwegian legislation is predicated on a two-step process. Firstly, the EEA Joint Committee, which is comprised of representatives of the EU and the EEA members of EFTA (Norway, Iceland and Liechtenstein), assesses the EEA relevance of the EU legal act in question. If all parties agree on the pertinence of the directive or regulation, the EU legal act is incorporated into the Annexes of the EEA Agreement, see Article 102 EEA. At this point, the EU law has become EEA law. However, it has yet to become Norwegian law – another step is required. Secondly, therefore, the Storting must transpose the EEA obligations into national law. The procedure is outlined in Article 7 EEA. If the EU law is a regulation, it must be incorporated ‘as such’ (i.e., without any alterations), cf. Article 7 (a) EEA. If it is a directive, the Norwegian government may determine ‘the choice of form and method of implementation’, cf. Article 7 (b) EEA.

### 2.3.4 Enterprises required to report under the EU Taxonomy

The first Norwegian enterprises must report for the financial year 2023, meaning 2024 will be the first year the selected enterprises will have to report. The reporting obligation under the taxonomy regulation applies to all listed companies, and all banks and insurance companies who tick the following criteria:

- Have above 500 employees, and
- Are considered *large* enterprises according to the EU’s Accounting Directive

In determining whether an enterprise qualifies as large, the threshold values specified in Article 3, paragraph 4, of the accounting directive shall serve as the basis. Converted to Norwegian kroner using the exchange rate from July 2013, these values are as follows:

- Balance sheet total: 157,12 million NOK (20 million Euros)
- Sales revenue: 324,24 million NOK (40 million Euros)

(Regjeringen, n.d.)

## **2.4 Sustainability certifications**

### **2.4.1 Formal Institutions of Sustainability Certifications**

#### **Energimerkeforordningen**

The Energy Performance of Buildings Directive (in Norwegian *energimerkeforordningen* or *energimerkeordningen*), requires that all residential and commercial buildings, whether for sale, lease, or newly constructed, must obtain an energy certificate. The energy certificate, which includes an energy and a heating rating, serves as a simplified metric for evaluating the energy performance of buildings and homes. The aim of this energy directive is to encourage energy-efficient management of building assets, and to incentives initiatives aimed at implementing energy-saving measures (NVE, 2015).

The energy rating is calculated based on the delivered energy to the building in kWh per sq. metre. The scale is from A to G, where A is the least delivered energy (best) and G is the most delivered energy (worst). The energy rating is done based on a standardized calculation, where the buildings technical installations and qualities are being evaluated. This effectively means that the amount of energy consumed based on the owners' use of the building, does not affect the rating. The reason for this is that the Energy Performance directive aims to deliver a rating of buildings based on the building's inherent energy efficiency capabilities (Enova, 2019, p. 21).

After the energy rating calculation is done, a certificate is delivered revealing the energy rating and a heating rating. The heat rating indicates whether alternative energy sources

for heating are used instead of oil, electricity, and gas (Grønn Byggallianse, 2011, p. 7). Figure 5 illustrates a buildings energy and heat rating.

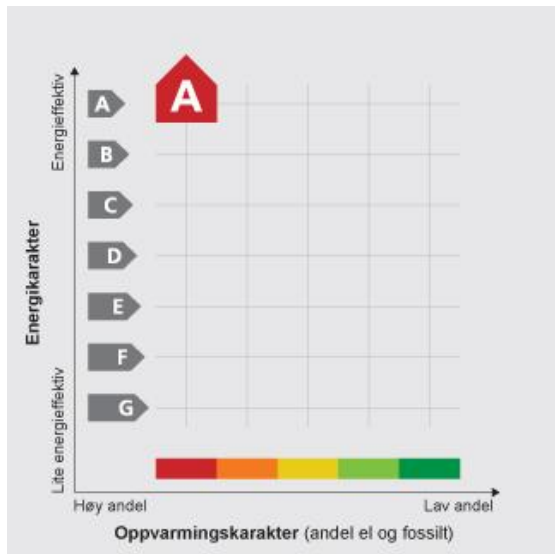


Figure 5: Energy and heat rating, n.d. NVE, (<https://www.enova.no/energimerking/om-energimerkeordningen/om-energiattesten/tiltakslisten/energikarakteren/>)

The Energy Performance directive was implemented in Norway the 1<sup>st</sup> of July 2010, in response to the EU Building Energy Directive. It is incorporated in Norwegian Law through the *Energimerkeforskriften for bygninger* (Energimerkeforskriften for bygninger, 2009). Despite being compulsory, research conducted by Enova and SSB discovered that about one-third of Norwegian office buildings still lack an energy certificate (Enova, 2019, p. 16).

#### 2.4.2 Informal Institutions of Sustainability Certifications

##### **BREEAM**

BREEAM (Building Research Establishment Assessment Method) is an international classification system for sustainability assessment of buildings. The BREEAM certification family is managed by the BRE (Building Research Establishment) in the UK (Grønn Byggallianse, n.d.-b). A version of the BREEAM have been developed especially for the Norwegian market, called BREEAM-NOR. The BREEAM NOR certification is managed by Grønn Byggallianse (Grønn Byggallianse, n.d.-a). The BREEAM-NOR is currently the most widely used sustainability certification of new buildings and large



renovation projects in Norway. When certified with BREEAM NOR certification a building proves qualities extending the minimum in the national building standard TEK17 (Grønn Byggallianse, n.d.-b).

Achievement of the BREEAM NOR is proven with a certificate. To achieve a BREEAM certification, a licensed auditor must register the project with Grønn Byggallianse (Grønn Byggallianse, n.d. – a). A building can achieve BREEAM-NOR alignment on five levels: Pass, Good, Very Good, Excellent and Outstanding, where outstanding is the highest level of sustainability. The projects are measured in nine categories: leadership, health- and indoor environment, energy, transport, water, materials, waste, land use and ecology, and contamination. Each category provides a list of criteria to reduce the environmental damage, and the better you do the more points you can achieve. The more point the project the achieve, the higher the level of certification it achieves. Points can only be achieved where the criteria can be and is documented (Grønn Byggallianse, n.d.-b).

Another widely used BREEAM certification in Norway is the BREEAM In-Use. This certification is especially aimed at existing buildings and buildings that are in use. The BREEAM In- Use is controlled by the BRE in the UK. The BREEAM In Use serves as an evaluation tool for property owners to access and enhance their buildings. By adhering to a specified set of criteria and engaging an external auditor, they can achieve a BREEAM In- use certificate. The BREEAM In-Use certifications is divided into two parts: Part 1 (Asset Performance) and Part 2 (Management Performance). It is up to the user to decide whether she want to certify both, or just one of the parts. There are six levels of The BREEAM In–Use certification: Acceptable, Pass, Good, Very Good, Excellent, and Outstanding). It evaluates the project in nine categories: leadership, health- and well-being, energy, transport, water, resilience, waste, land use and ecology, and contamination. The BREEAM In-Use certification remains valid for three years following its approval, after which a recertification is required (Grønn Byggallianse, n.d.-c).

## **WELL**

WELL is a building standard and a sustainability roadmap developed by the International WELL Building Institute, designed to create indoor spaces that advances human health and well-being, through scientifically validated and adaptable design strategies. The WELL building standard is voluntary and focuses on ten concepts to support wellbeing in buildings: air, water, nourishment, light, movement, thermal comfort, sound, materials, mind, and community. The comprehensive standard provides a structured approach to creating healthier, more sustainable building environment, prioritizing the well-being of occupants (International WELL Building Institute, n.d)

### **2.4.3 Sustainability Tools**

#### **CRREM**

Carbon Risk Real Estate Monitor (CRREM) is a sustainability tool that aims to contribute to accelerating the decarbonization of the real estate sector. CRREM assists investors in the decarbonization process in the real estate sector by providing them with science-based-targets for carbon reduction. This includes guided pathways for reduction and monitoring tools needed for an efficient process.

Another aim of the CRREM tool is to assess the “stranding risk” of buildings. Stranding assets refers to properties that does not comply with future energy standards and market expectations due to regulatory changes, and therefore are at increased risk of decline in value. Using the CRREM tool a graph is created for your building, which demonstrates how the building is doing compared to the Paris 2050 target of zero carbon emission, as illustrated in Figure 6 (CRREM, n.d.).

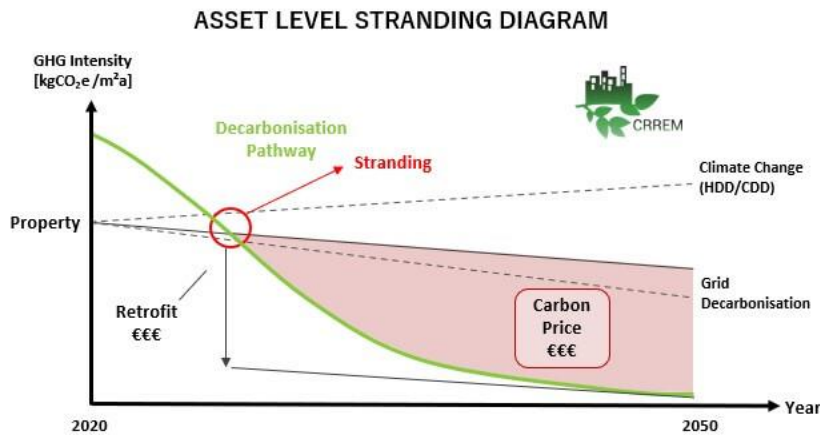


Figure 6: *Asset Level Stranding Diagram*, n.d-a, CRREM (<https://www.crrem.eu/objectives-and-benefits/>)

### Science –Based Targets

Science-based targets (SBT) is a tool that offers companies a well-defined approach to lower their greenhouse gas (GHG) emissions. The tool helps companies to set scientifically based target with specific measures on how they can reduce emissions. Targets are labelled ‘science-based’ when they align with the most recent climate recommendations necessary to achieve the Paris Agreements objective of limiting global warming. Companies setting SBT receive expert guidance on how they can apply specific measures to reduce their emissions to be in line with the Paris Agreement goals (Science Based Targets, n.d). Figure 7 illustrates a simplified graph of mitigation pathways using SBT.

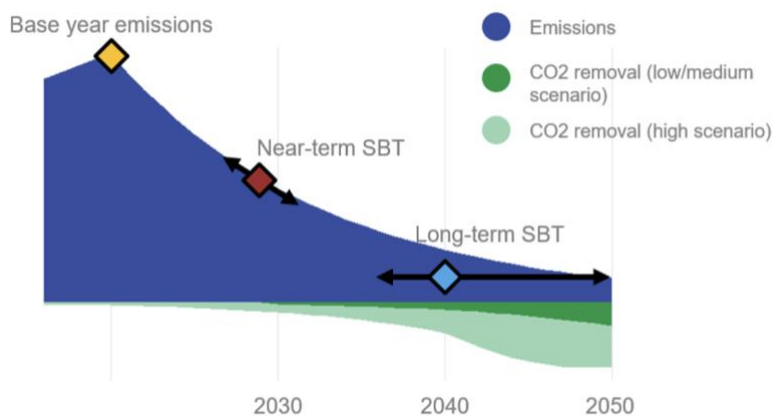


Figure 7: *Simplified illustration of how mitigation pathways are used to calculate Science Based Targets*, 2021, Science Based Targets (<https://sciencebasedtargets.org/resources/files/Pathway-to-Net-Zero.pdf>)

### **3. Method**

The following chapter will present the method and approach necessary to respond research questions, and to the problem statement for the thesis:

*What specific measures can property developers take to ensure efficient implementation of the EU Taxonomy for renovation of existing buildings in office renovation projects?*

#### **3.1 Research Design**

The research object of this study is to discover specific methods and strategies for property developers to implement of the EU Taxonomy in office building renovations.

As the EU Taxonomy is a relatively new subject, the previous literature and research on its implementation is limited. Consequently, a reasonable approach to conduct the research was requesting the information directly from the property developers and other relevant experts, through qualitative interviews. To strengthen the explanatory power of the interviews, they will then be interpreted through the lens of institutional theory, as described in chapter 2. A literature review is also conducted to map prior and relevant research for the study. This method triangulation aims to strengthen the validity of the research and provide proper understanding of the research object.

##### **3.1.1 Qualitative Method and type of sources**

This paper will employ qualitative method of interviews to collect primary data. An in-depth interview is a conversation where the interviewer encourages respondents to share their own perspectives and experiences that are relevant to the problem statement (Halvorsen, 2008, p.138). As a crucial aim for the research is to gain insights in property developers' perspectives and strategies towards the taxonomy implementation, qualitative interview was considered the most viable source to get information. As the EU Taxonomy is relatively new, especially in Norway, a qualitative approach with interviews was considered to provide the most elaborate insights on how the property development Interest was thinking to approach the taxonomy. The research study is based on a total of 14 interviews.

### **3.1.1.1 Selection Criteria for the Interviews**

In the process of addressing the research questions, it became evident that two types of information were imperative: (1) an understanding of the criteria set forth by the EU Taxonomy, including their practical implications and interpretations in Norway, and (2) Insights into how property developers perceive and integrate these criteria (or plan to) into their practices. Consequently, the selection of participants necessitated individuals with expertise in this area, resulting in the exclusion of certain actors.

As outlined in the introduction, the focal point of the study is to clarify a methodology for the implementation of the EU Taxonomy in building renovation projects.

To respond to the research questions and problem statement, three distinctive sample groups were created for the interviews:

- (1) A selection of property developers from the industry, who have office-rehabilitation projects in their portfolios, and can share their interpretations and strategies for implementation. The selection of developers was confined to Norwegian property developers active in metropolitan areas (CBD) in Norway to ensure a degree of comparability. The selection must have had completed a renovation project of an office building in the past five years. As the EU-Taxonomy was enforced in 2020, it was considered a reasonable timeframe for the taxonomy to be relevant for their projects. Lastly, the property developing companies had to express a sustainability-oriented profile.
- (2) A selection of industry organizations capable of providing unbiased insights into the interpretation of the EU Taxonomy, its effects on the developers and strategies for adaptation.
- (3) Financial and legal experts. Alignment with the taxonomy promotes financial incentives through favourable lending conditions, like green loans. This makes it crucial to engage with financial institutions to assess their perspectives on potential risk and impact for the EU Taxonomy in real estate. Secondly, a legal

expert with specialized knowledge in real estate taxonomy was sought for a comprehensive evaluation of the challenges within the legal framework.

### 3.1.1.2 Selection Process

#### Property Developers

Following a comprehensive review of potential candidates, ten potential property development companies were identified. Each of these companies were contacted via email, addressed to either the Director of Sustainability in that firm, or to another administrative position. Additionally, where applicable, efforts were made to reach the project manager responsible for recent renovation project the firm had done.

The email introduced the master’s thesis and requested a conversation with the respondent regarding the company’s sustainability and taxonomy strategy or asked to be redirected to the relevant person for this discussion. In total, 15 property developers were contacted: one did not respond, two indicated that the EU Taxonomy was not applicable to them, and two stated they lacked relevant experience or strategy with the EU Taxonomy in renovation projects.

The selected property developers for the study are presented in Figure 8 below.

Company	Role	Size of firm
PD1	Sustainability coordinator	Small
PD2	Head of Sustainability	Large
PD3	Project manager, and a project and sustainability Director	Small
PD4	Environmental advisor in project management	Medium
PD5	Project Director	Medium
PD6	Business controller	Micro
PD7	Project-, Energy- and Environmental Manager	Small
PD8	Sustainability and Environmental Advisor	Large

Figure 8: Property Developers

Source: Own illustration

#### Industry Organizations

Three distinct different industry organizations were contacted via email. Two of the organizations were already familiar due to their prominence in the Property Development

sector. The third organization was recommended during an initial interview with a property developer who utilized their services for sustainability guidance.

The email consisted of a brief presentation of the master thesis and a requested for a conversation about their strategic advice to property developers regarding strategy of implementation of the taxonomy, as well as their potential experiences. The roles of the interviewees from interest organizations are detailed in Figure 8.

### Legal and Financial Advisors

The initial interviews with the property developers and Interest organizations revealed a general lack of detailed knowledge about the financial and legal implication of the taxonomy for renovation of existing buildings. A legal advisor, recommended by one of the interest organizations as a specialist in property development and particularly knowledgeable about the taxonomy for renovation of existing buildings, was subsequently contacted via email to discuss the legal interpretations.

Two financial advisors were chosen from prominent financial institutions. One was referred by a contact within the same bank, as an expert on green loans and the taxonomy. The other was discovered through a podcast discussing the implications of the EU Taxonomy for property developers. The first financial advisor was contacted via phone, and the second via email, both with a request for a conversation about their banks' framework for green loans. The role of the legal and financial advisors are described in Figure 9.

Interest organization	Role		
IO1	Certification Manager		
IO2	Head of Department		
IO3	Head of Industry Development, Sustainability, Urban and Regional Development		
Legal/ Financial advisors			
LA1	Partner, lawyer		
FA1	Client Advisor, bank		
FA2	Head of Sustainability, bank		

Figure 9: Interest Organisations, and Legal and Financial Advisors

### **3.1.1.3 The Interviews**

#### **The Interview Form and Phases**

A qualitative interview is designed to explore topics in great depth, thereby inherently limiting the number of individuals that can be interviewed (Dalland, 2017, s. 76). After a careful consideration, it was concluded to use a semi-structured interview format, incorporating open-ended questions. This choice was made to encourage respondents to provide comprehensive and detailed answers, rather than merely responding with a simple yes or no. By utilizing open-ended questions, the aim is to facilitate a richer and more nuanced understanding of each participants perspective, allowing for a more profound exploration of the subject.

#### **Preparation for Interviews**

A successful interview is dependent on proper preparation. It is crucial to be well-oriented about the person you are about to meet, their expertise, and what you want to achieve with the interview. This information will allow for a smoother interview and prepare you to know when it is important to go more in-depth, and when shorter answers are adequate (Thagaard, 2009; as cited in Dalland, 2017, s. 77).

In preparation for the interviews, thorough research was conducted on each company associated with the interviewees. For the property developers, research was done on their renovation projects that might align with the taxonomy, as well as their strategies for sustainability. For the Interest organizations, guides and guidelines presented on their websites were investigated, alongside with their statements in the media and during interviews regarding implementation of the EU Taxonomy. Similar research was undertaken for the legal and financial advisors, with a detailed review of their frameworks for obtaining green loans.

Building on this preparation, interview guides were developed to further explore these insights. Four different guides were developed: one for the property developers, one for the interest organizations, one for the financial advisor and one for the legal advisor. This was because the aim was to gain slightly different information from the different categories of interviewees.



The qualitative interview is characterized by its conversational form, where questions are made during the conversations following the responses from the interviewed person with the goal of provoking spontaneous answers from the respondent (Dalland, 2017, s. 78). The guide was designed to ensure all necessary topics were covered, yet it remained flexible to allow for a natural flow of conversation. It included open-ended questions aiming to trigger detailed explanations, rather than simple yes or no answers. This approach was intended to facilitate interviews that could last between 45 minutes to 1 hour, depending on how extensively the interviewees chose to elaborate.

### **The Interview**

All interviews were conducted in-person via Microsoft Teams, apart from two, which were held at the interviewee's office. The reason for this was (1) time management, the interviewed objects were busy and conducting the meeting through Teams led to more respondents agreeing to an interview (2) geographic limitation. Some of the objects interviewed lived in another city, which made a digital meeting more convenient. All 14 interviews were conducted in the period February - March 2024.

Prior to the interviews, the problem statement and master's thesis were presented, along with key discussion points and a rationale for the respondents' relevance. During the interviews, this information was reiterated.

Each interview started with a formal introduction, where I presented myself, provided an overview of the thesis, the problem statement, and informed the respondent of their significance to the research. Then, the interviewees were asked for consent to record the interview, assuring them the tape would be stored safely on an external hard drive, and deleted upon completion of the thesis.

The deliberately open-ended questions fostered detailed but distinctive responses from the interviewees, which led to a variety of conversation subjects. The interview guide was the starting point, but I would allow for jumping back and forth following the natural turn of the conversation. As the interview progressed, additional questions that appeared during the conversation was noted.

At the end of each interview, the interviewees were thanked for their time, and informed them that their identities would remain anonymous in the thesis. Furthermore, they were provided with the Sikt-contract, requesting that they reviewed it thoroughly, sign it, and return it.

### **After the Interviews**

The interviews varied in length, lasting from 30 minutes to an hour and a half, depending on how much each object was elaborating on each question posed. The aim was to delve deeper into the strategies of the development firms, so further discussion on relevant topics where appropriate was encouraged. Following each interview, the discussions from both notes and the audio recordings were transcribed. In cases where the responses were insufficient, the interviewee was re-contacted with follow-up questions to clarify or expand on their initial answers.

After conducting the initial interviews, the interview guide was refined by removing some superfluous questions and adding new ones that emerged as crucial based on the insights gained. These adjustments were made to enhance the value of subsequent interviews. The final version of the interview guide is included in the Appendix.

### **Method for Analysing the Interviews**

To analyse the findings from the interviews, the method of thematic processing is employed. This involves organizing the individual responses into specific themes, that all help respond to investigate the problem statement and research questions (Dalland, 2017, p. 92). For each theme, the different responses from the interviewees will be presented, then an analysis and discussion of the findings will follow. The discussion chapter will systematically address the research questions and problem statement with the findings from the interviews, and through a theoretical lens. The theoretical lens of institutional theory (North, 1990) and institutional isomorphism (DiMaggio & Powell, 1983) will be applied to strengthen the explanatory power of the findings.

### **3.1.2 Literature Review**

A structured search is important in a literature review. Trusted research platforms were used to conduct structured research for this study, like Oria, Idunn, Brage, NTNU open

and UIB. The research was done primarily in Norwegian, as discovered early on that most of the prior research on Norwegian implementation of the taxonomy in property development was written in Norwegian. The research words used were “ EU-taksonomi for bærekraft bygg eiendom», «EU-taksonomi for bærekraft bygg eiendom renovering» “Taksonomi oppfyllelse eiendomsutvikling”, “taksonomi implementering” “taksonomi + betydning for eiendomsutviklere».

### **3.1.3 Evaluation of method**

The concepts of reliability and validity and are common measures for considering the credibility of research. The reliability of a research means to what extent the result of the study can be trusted. Validity, on the hand, concerns whether the study measures what it is supposed to measure. For example, whether an IQ text is truly measuring intelligence (Greness, 2012, p. 106). Reliability and validity are linked concepts. There is no point of discussing if the study is measuring what it is supposed to measure (validity) if the research method cannot be trusted (lacking reliability). Additionally, a reliable research method does not necessarily guarantee a valid result (Greness, 2012, p. 106).

The validity and reliability measures were initially developed for the quantitate method and are harder to apply to qualitative research (Halvorsen, 2008, p.11). Qualitative interview captures genuine responses at a specific moment, and cannot be repeated to produce the exact same results (Dalland, 2017, p.79). The respondents could have increased their knowledge or changes their perspectives after the interviews, which challenges the validity and reliability of the study.

Several measures have been taken to ensure validity in this study. The validity of qualitative research relies on the credibility of the conducted data. The validity of this study has been enhanced by verifying that the information from the interviews is correct through fact-checking after the interviews (Halvorsen, 2008, p.11). Additionally, the selection of highly competent experts from the real estate sector, in addition to experts on the EU Taxonomy has ensured that the data collected is of high quality.

The reliability of the study is enhanced by providing a detailed description of the data collection and analysis was done, and thereby enhancing the integrity of the findings (Dalland, 2017, p.55).

### **3.2 Ethical considerations**

A range of measures was done to ensure ethical interests in the research. A notification form was sent to the Sikt - Norwegian Agency for Shared Services in Education and Research in January, before the interviews. The Sikt contract is attached in Appendix . The respondents from the interviews were provided with a consent agreement outlining their rights and granting permission to reproduce the information from the interviews anonymously. The consent agreement also informed them of their right to withdraw their participation in the study at any time.

### **3.3 Limitations**

The methodology employed in this study is subject to a few limitations in the data obtained. Firstly, there is a concern that the interviewees may have withheld information due to competitive considerations, and respectively limited the reliability of the responses. This issue was addressed by ensuring the anonymity of all respondents.

Moreover, the semi structured and open-ended interviews led many participants to divert their focus from the EU Taxonomy to their general sustainability strategies. This resulted in digressions in the conversations and highlights the need for clearer communication of the interviews objectives to maintain the discussion within the research scope. Additionally, the open-ended nature of the interviews presented challenges in comparing and analysing the responses, and employing a more structured interview format may have eased the comparative analysis.

## 4. Findings and Analysis

### 4.2 Findings from the interviews

This chapter presents the primary data from the anonymized interviews, as described in the method section. A total of 14 interviews were conducted throughout this study. The findings are organized into three parts to facilitate a clear and coherent discussion.

Part 1 present the insights from the interviews with eight property developers. Part 2 presents the findings from the interviews conducted with the interest organisations, and Part 3 presents the findings from the financial institutions and legal professionals.

The objective of this study is to identify strategies and methodologies for implementing the taxonomy in renovation projects, as opposed to conducting a comparative analysis of property developers. The intent is to ensure the most honest responses possible, and therefore the identities of the respondents have been anonymized.

#### Presentation of the Responses

The responses to the interview questions have been organized into a system of three categories. For questions that require a binary yes/no answer or measure the extent of agreement with a statement, the responses are tabulated. The extent of agreement with the statement is categorized into three levels: `low`, `medium`, and `high`. `Low` indicates minimal agreement with the statement, while `high` signifies strong agreement. The third category comprises questions that elicited detailed responses and is presented separately from the table.

Example:

	PD1	PD2	PD3	PD4	PD5	PD6	PD7	PD8
Question 1 (Yes/ no answer)	Yes	No	No	Yes	No	Yes	No	No
Question 2 (extent of agreement with a statement: low/mid/high)	Mid	Mid	High	Mid	High	Low	Mid	Mid

Question 3 (asks for detailed response)

## 4.2.1 Part 1: Findings from the interviews with Property Developers

A total of eight property developers were interviewed. As described in section 3.1.2 the interview objects were selected based on a set of selection criteria. Key information about the eight property developers interviewed, which might influence their point of view, is summarized in Figure 10 below.

Company	Role	Size of firm
PD1	Sustainability coordinator	Small
PD2	Head of Sustainability	Large
PD3	Project manager, and a project and sustainability Director	Small
PD4	Environmental advisor in project management	Medium
PD5	Project Director	Medium
PD6	Business controller	Micro
PD7	Project-, Energy- and Environmental Manager	Small
PD8	Sustainability and Environmental Advisor	Large

Figure 10: Overview of Property Developers interviewed

Source: own illustration

The property developers interviewed for this study are classified into large, medium, small and micro enterprises, based on the definitions provided by Lovdata (Forskrift til lov om statlig garantiordning for lån til små og mellomstore bedrifter, 2020, §3). This categorization is relevant for the study, as the size of the firm together with its turnover, determine the year, and if, the firm must report on EU Taxonomy compliance. The criteria for which property developer is required to report on the taxonomy was further explained in point 2.3.4. Further detailed information about the property developers has been carefully avoided to preserve their anonymity.

### 4.2.1.1 Familiarity and interpretation of requirements

The property developers were first asked about their familiarity with the EU Taxonomy, and their perception of clarity in the criteria. Further, they were asked about how they interpret the specific screening criteria of 70% reuse, as it appeared from the initial review of the taxonomy criteria to be ambiguous.

## Questions

i.	<i>How familiar are you with the EU Taxonomy for renovation of buildings?</i>
ii.	<i>To what extent do you find the criteria clear?</i>
iii.	<i>Can you explain how you interpret the 70% reuse criteria?</i>

	PD1	PD2	PD3	PD4	PD5	PD6	PD7	PD8
Familiarity with the taxonomy for the building sector	High	Mid	High	High	Mid	Mid	High	Mid
Perception of clarity in the criteria	Low	Low	Low	Low	High	Low	Mid	Mid

### **Familiarity with the EU Taxonomy**

Most participants demonstrated a reasonable familiarity with the EU Taxonomy in general, as the responses illustrates in Figure 10. On the other hand, it became evident that there were some confusions distinguishing between the criteria for new buildings and the criteria for renovation of existing buildings. Specifically, when discussing renovation standards, some participants tended inadvertently referenced to the criteria applicable to new constructions.

The research highlighted a distinct separation in knowledge among the participants. This difference became apparent in the difference between the participants who exhibited a thorough understanding and could articulate detailed aspects of the taxonomy, and those whose knowledge appeared to be more fraught, as they kept the discussion on a quite superficial level. And where the phrase “ I am not an expert, but” was recurrent.

### **Perception of Clarity in the Criteria**

When asked about their perception of clarity of the criterion, most of the interviewees responded that they believed some parts of the taxonomy to be unclear.

The majority of the respondents stated that they found the technical screening criteria to be clear, but the do-no-significant-harm criteria (DNSH) to be less clear. The reason DNSH was unclear was the lack of defined specific agreement on the correct way of documenting them.

PD7 found that the taxonomy lacked clarity because of the extensive use of bureaucratic language, and the criterion being so open to interpretation due to their broad scope for interpretation. He highlighted the criteria for facilitation for 70% reuse.

PD1 and PD6 responded that the EU Taxonomy lacked clarity because of the lack of specific guidelines to document meeting the criteria.

### **Interpretation of 70% Facilitation for Reuse Criteria**

A recurring discussion in the interviews was the interpretation of the do-no-significant-harm (DNSH) criteria in the taxonomy which concerns re-use. In short, the criteria asked that at least 70% of non-hazardous construction and demolition waste from the construction site must be prepared for re-use or recycling. This preparation is to happen in accordance with the EU Construction and Demolition Waste Management Protocol (European Commission, n.d.-d). The criteria will hereby be referred to as the 70% requirement.

PD1 and PD4 responded that they ensured high sorting purity on the construction site, which they believed to be adequate to align with the criteria. PD4 had a 90% sorting degree on site, of which materials were sorted for re- use. Despite this, the property developer did believe a majority was burned, nonetheless.

Respondent PD8 explained that their holding company had made a definition for the criteria. To align, they must document that 70% of the non-hazardous construction waste is being recycled or reused, tracking the downstream lines. PD8 perceived this as difficult to follow, because of the lack of recycling resources for specific materials, like wood, in Norway.

PD7 shared the concern that Norway may not possess adequate resources for successful material recycling of 70% of non-hazardous construction waste from all future renovation projects, despite the available technology. PD7 explained that they had directed the contractor to furnish documentation of the downstream lines, with the aspiration that more developers will emulate this practice. They believe this in turn could incentivize renovators to create new business and downstream models that in time can facilitate the level of recycling needed.



PD2 has developed a digital mapping tool for re-use, to help map out and document towards criterion. The tool provides information about the remaining lifetime of the material and is proven to align with TEK17.

As of 14 May 2024, no official guidelines have been issued from the Government of Norway regarding the interpretation of this criterion. An observation made during the interviews, was that the respondents' interpretations of what the requirement entailed varied substantially. While some were satisfied with sorting material waste on the construction site, others were working on mapping the entire downstream line of the construction waste.

#### 4.2.1.2 Experience in implementing the EU-Taxonomy

The interview objects were asked about their firms experience with implementing the taxonomy, and if so, whether they had experienced any difficulties. The aim of these questions was to uncover potential difficulties the property developers had faced, and to identify of what worked well or not. The property developers' responses are presented in the following.

##### Questions

i.	<i>Can you provide an example of a project you have done, where the taxonomy criteria of renovation have been, or attempted to be fulfilled?</i>
ii.	<i>Have you done a mapping of your renovation projects towards the taxonomy criteria?</i>
iii.	<i>Do you experience any difficulties in implementing the taxonomy for renovation of existing buildings, if so, what aspects?</i>

	PD1	PD2	PD3	PD4	PD5	PD6	PD7	PD8
Prior experience with attempt to fulfil the EU Taxonomy criteria for renovation	No	No	No	No	No	No	No	No
Mapping of renovation projects	Yes	No	Yes	Yes	Yes	No	Yes	Yes

Experience of difficulty in aligning with the criteria	Mid	Low	High	Mid	Mid	High	Low	High
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**Prior Experience with Aligning with the Taxonomy**

The responses from the interviews indicated a lack of prior experience in implementing the taxonomy criteria in renovation of existing buildings. Some of the respondents believed that some of their prior projects would align with the EU Taxonomy, but that some criteria, as the 70% requirement, prove challenging to document following completion of the project.

Despite not having implemented the taxonomy in their portfolio, the majority responded that they had begun mapping their real estate portfolio of against the taxonomy to identify potential alignment.

**Experience of Difficulty**

Throughout the course of the interviews conducted with the property developers, a few difficulties in implementing the taxonomy for renovation of existing buildings were identified. A recurrent theme was the perceived lack of clear explicit guidelines from governmental and policymakers, particularly concerning the definitive interpretation of some of the criteria. Other aspects mentioned as difficult, were the criteria concerning the water and energy usage, and the cost of proper documentation. Listed buildings, or buildings with certain design posed challenges in aligning the energy criteria. In the following sections, the aspects the interviewees flagged as difficult by the interview respondents will be presented.

*Water Usage Criteria*

Among the perceived difficulties of implementing the taxonomy, a DNSH criterion concerning water usage was mentioned to be difficult. This criterion sets a maximum water usage for water in renovated buildings to align with the taxonomy. As specified in Appendix E to Annex I of Delegated Regulation (EU) 2021/2139, water appliances installed during renovation work (excluding residential units) must meet certain water use limits:

<i>Water Usage Criteria</i>	<ul style="list-style-type: none"> <li>A. “wash hand basin taps and kitchen taps have a maximum water flow of 6 litres/min;</li> <li>B. showers have a maximum water flow of 8 litres/min;</li> <li>C. WCs, including suites, bowls and flushing cisterns, have a full flush volume of a maximum of 6 litres and a maximum average flush volume of 3,5 litres;</li> <li>D. urinals use a maximum of 2 litres/bowl/hour. Flushing urinals have a maximum full flush volume of 1 litre. “</li> </ul> <p>(European Commission, n.d.–d)</p>
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PD3 express concerns about the practicality of the stringent requirement, and the potential for it to be counterproductive. He explained the issue with the water criteria for toilets – they would need to change the mixing taps to be aligned with the criteria in the taxonomy. They find this to be less sustainable than keeping the fully capable ones in the buildings – with eight years left of its lifetime. Therefore, they have concluded to keep the existing ones and consequently does not align with the taxonomy.

PD1 also expresses concern for the practical implementation of the stringent water criteria. If the end-user finds the water pressure to be too light, they will have to change the mixing taps, and no longer comply with the criteria.

PD8 explains that the water criterion seems peculiar for Norwegian conditions, given the availability of resources. He suggests that the technical requirements to conserve and re-use water would necessitate extensive additional technical installations in walls and roofs, which, in turn, could lead to new complications.

### *Energy Demand Improvement*

Another perceived difficulty among several of the property developers, was to meet the energy criterion. The EU Taxonomy for renovation of existing buildings requires that the renovated building has an energy demand of one of the following:

<i>Energy criteria</i>	<p>A. “The energy performance of the building or the renovated part that is upgraded meets cost-optimal minimum energy performance requirements in accordance with the respective directive.</p> <p>B. Alternatively, it leads to a reduction of primary energy demand (PED) of at least 30 % “</p> <p>(European Commission, n.d.–d)</p>
------------------------	--

PD1 expresses difficulty in achieving the 30% reduction of energy demand in older and listed buildings.

PD3 explains they encountered challenges meeting the 30% energy improvement criteria due to the design of the building. The buildings in question already maintained a relatively high energy rating prior to the renovation but fell short of ranking within the top 15% nation-wide. The buildings’ predominantly glazed facade posed significant limitations on achieving a 30% improvement. During renovation, an additional story was added to the building, featuring four-layered glass, which enhanced the overall energy rating of the building. Nevertheless, PD3 expresses concerns regarding the expense and sustainability of replacing the glazing for the entire building. Despite acknowledging the potential for considerable improvement in energy rating PD3 finds the cost of replacing the existing façade and environmental impact of doing so to be prohibitive.

*Other*

Other obstacles in implementing the taxonomy that became apparent during the interviews were related to cost. PD3 expresses a concern about the difficulty for smaller companies to report on the taxonomy due to the administrative burden. They expressed a concern that the taxonomy is not feasible for smaller firms and projects. PD3 believes it would be difficult for these types of firms to afford an accountant to ensure adequate mapping.

PD1 expresses a concern that a taxonomy for renovation of existing buildings might not be the most sustainable use of resources. PD1 expresses a need to question how sustainable it truly is to remodel and upgrade all existing buildings, especially when

Norway already has a relatively secure energy supply. It was further argued that consumption was not necessarily the biggest challenge in the global climate crisis, but that the emissions from the construction process itself that is the most critical point in the real estate sector and should be addressed.

PD2 expresses a concern about the market being immature for reuse, expressing a need for front-runners to lead the way. She highlighted the increased risk of working with re-used materials.

PD4 explains there are industry-wide challenges due to the lack of clear guidance from authorities and the various interpretations across the sector, emphasizing the need for a more unified approach and clear directions from the government.

PD4 also expresses difficulty in interpreting the 70% requirement and obtaining the necessary information from their subcontracts, who often struggle to provide the required documentation. She also explains that the industry was divided in how the requirement of absence of environmental toxins and emissions should be interpreted. The question being whether this applied to all material or only the most harmful ones. This is particularly difficult to document in renovation cases involving existing materials, such as in a building from 1905 where original documentation is impossible to obtain. She highlighted that this explains the need for a clear industry consensus on standards.

#### 4.2.1.3 Strategies used by Developers for Compliance with the Taxonomy

To create an understanding of how the different property developers were planning to approach the implementation, they were asked about the decision-making scheme and whether taxonomy was part of their strategy:

##### Questions

- |      |   |
|------|---|
| i.   | <i>How does your firm engage with the taxonomy? Is alignment part of your strategy going forward?</i> |
| ii.. | <i>Can you explain the firm's decision framework for implementation of the taxonomy?</i>              |

- iii. *Have you created a specific strategy for implementation of the EU-taxonomy in renovation projects?*
- iv. *Are you using any specific tools for implementation of the EU Taxonomy?*
- v. *Are you using any other sustainability certifications or tools for your renovation projects?*

	PD1	PD2	PD3	PD4	PD5	PD6	PD7	PD8
All future projects will align (absolute requirement)	No	No	No	Yes	No	No	Yes	Yes
Created specific strategy for implementation	Yes	No	No	No	No	No	Yes	No
Specific tools for implementation of the EU Taxonomy	BRREM	No	No	SBT* BREEAM Celsia	No	No	BREEAM WELL CRREM	No
Other sustainability tools for existing buildings	BRREM in-use	BRREM in-use	BREEAM in-use Miljøfyrtårn	BREEAM in-use Futurebuilt	BREEAM In-use Futurebuilt Zero-foundation	BREEAM In-use, Svanemerket, Miljøfyrtårn	BREEAM in-use Futurebuilt	BREEAM In-use

\*SBT= Science Based Target

### **The Company's Engagement with the EU Taxonomy**

The property developers were asked how they engaged with the implementation of the Taxonomy, and whether taxonomy alignment was an absolute criterion in future renovation projects. PD4, PD7 and PD8 responded that it was the company's aim that all future projects would align.

PD1 explains that they will try to align where possible in future renovation projects, but that sustainability measures recognized as sustainable for the management of the building

would be prioritized. PD1 further describes the company's approach to the EU Taxonomy as pragmatic, where implementation is assessed from project to project.

PD3 responds that taxonomy alignment is not the priority in renovation, but instead, they are prioritizing BREEAM alignment.

### **Decision Making Framework**

The respondents were asked about their firm's decision-making framework in implementation of the taxonomy.

PD1 replies that in the decision on whether to implement the taxonomy in renovation projects, emphasis was placed on economic sustainability and financing opportunities such as green loans. There is a willingness to meet taxonomy criteria in renovation projects where possible, but the prime focus is on new constructions.

PD3 believes is highly important to be prepared and informed about the taxonomy, but that it is not a decisive factor in the decision-making process. Instead, there is a preference for realistic and commercially viable sustainability efforts over strict adherence to the taxonomy. They explain a broader sustainability approach, such as using recycled material, conducting energy mapping for properties, and engaging with green financing, indicating a broader approach to sustainability, rather than a singular focus on the taxonomy. BREEAM is prioritized.

PD4 responds that they aim for achievement in all projects and project transaction, specifically projects with foreign investors. They evaluate which taxonomy category (often ownership) matches and utilizes the project.

PD5 explains that the EU Taxonomy implementation is included in their new sustainability strategy.

PD6 explains that the firm's decision making framework prioritizes sustainability reporting and improving energy efficiency, though not specifically aligning with the EU Taxonomy. They believe they are well-positioned in the market are not concerned about their buildings being considered unsustainable. They plan to upgrade their portfolio of buildings from Class C to B, but find large-scale renovation to class A less feasible.

PD7 states that the EU Taxonomy will be implemented as a minimum on all larger renovation projects in the future, but that the highest aim for each project is BREEAM certification.

PD8 explains that their decision-making process when it comes to EU Taxonomy implementation is based on a combination of internal expertise, company strategy, and client criteria. They have a pragmatic approach.

### **Strategies for Aligning with the EU Taxonomy**

When asked about their strategies for implementation of the taxonomy, it became apparent that although all property developers had a clear sustainability strategy, few made an explicit strategy for implementing the EU Taxonomy in renovation projects. The following section will provide the responses from the interviewees who had alignment strategies, or who had sustainability strategies that overlapped with taxonomy alignment.

#### *Use of other certifications and tools*

PD1 responds that they aim to achieve taxonomy alignment through BREEAM certification.

PD4 explains that they used Science-based-targets for their renovation project, emphasizing that this would ensure a scientific approach to optimizing sustainability in their buildings.

PD7 explains that they use the CRREM tool to test how project can align the Paris 2050 targets and stay ahead of possibly stricter criteria in the EU Taxonomy. Additionally, they are using the BRREAM NOR certification, which entails the taxonomy criteria, to prove taxonomy alignment. They are also using WELL to track the social well-being in their buildings, which could be used to prove alignment with the minimum safeguard criteria in the EU taxonomy (European Commission, n.d-d).

#### *Mapping of Energy Demand and Downstream Lines*

To prepare taxonomy implementation, property developer PD3 explains that they are doing an energy mapping of their entire portfolio.



PD4 indicates that they will implement the EU Taxonomy in all projects going forward, and will start reporting this year, as a test. They have not been able to fully document all the points in the do-no-significant-harm criteria, because of the lack of a common agreement on how to do so. PD4 believes that although many look to Grønn Byggallianse and the BREEAM manual, others think it is too strict. This is particularly true for pollution issues involving contaminated materials and environmental toxins, as well as VOC and formaldehydes emissions. They find it unclear what constitutes as sufficient or adequate documentation. Consequently, they have decided on a conservative approach this year, where they say they cannot fully document those criteria.

PD7 responds that they were in dialogue with waste management about creating downstream line documentation of the waste management to prepare for the waste criteria in the taxonomy (70%). They also had an ongoing dialogue with the bank about the framework for green loans.

#### *Engaging In-house and External Competence*

The majority responds that they were working on enhancing understanding of the EU Taxonomy to explore possible implementing strategies. When asked about their methods for staying informed about the taxonomy, responses varied.

Several respondents relied on external sources of expertise for information, including financial institutions and industry organizations such as Grønn Byggallianse. PD4 responds that they are using the reporting service Celsia, which they also find to be a valuable resource for staying updated on the taxonomy criteria. Additionally, PD7 has established an in-house team dedicated to sustainability, specifically focused on aligning projects with the taxonomy criteria.

#### *Building for Endurance*

Two of the interviewees responds that as a part of their sustainability strategy, they are renovating offices for greater longevity. It is common for office buildings to be customized for each new tenant. Lease durations typically range from 3 to 15 years, and

with each new lease, offices are usually refitted with new colours, furniture, floor plan tailored after the clients’ preferences. The two interviewees considered extending the interval between renovations a significant factor in enhancing sustainability.

PD3 introduces a novel office concept aimed at ensuring longevity for the interior in a recently completed the renovation of a large office building. This concept envisions that the interior of the office will maintain in its original state as new tenants come and go. The tenants should adapt to the building, and not the other way around. The interior design is made in neutral earth-tones, and high quality materials. Additionally, the layout is complemented by technical solutions that allow for a flexible floor plan. A large proportion of the walls is designed to be movable; the technical building infrastructure is moved up to the ceiling and minimized, allowing for easy adaptation of the space to new occupants.

PD8 has a similar approach as their strategy, which they had applied to a recently finished office building renovation.

#### 4.2.1.4 Does Compliance with the Taxonomy Affect the Economy of the Renovation Projects?

##### Questions

i.	<i>Are you using green loans? How do you perceive the effect of these?</i>
ii.	<i>How do you experience fulfilment of the taxonomy influences the economy of the projects?</i>

	PD1	PD2	PD3	PD4	PD5	PD6	PD7	PD8
Do you have green loans on some of you renovation projects?	Yes	Yes	Yes	Yes	No	No	No	Yes

### **Use and Effect of Green Loans**

When asked about whether the property developers were using green loans, it was revealed that the majority had. The property developers were subsequently asked about how they perceived the effect of the green loans on the projects.

PD1, PD2, PD8 responds that they do not find the perks of the green loans adequate to justify the investment financially. However, PD2 emphasizes that even though the green loan incentive for implementation of the EU Taxonomy criteria in renovation projects is not adequate, it is important to consider the bigger picture of what effect alignment could have on the firm's reputation and the market value of the building if it also led to a BREEAM certification.

### **Economic Viability in Projects with Taxonomy Implementation**

The property developers were asked how they perceived fulfilment of the taxonomy would influence the economy of the projects. The majority indicated that it was too early to say, as they had not implemented the taxonomy on any projects yet.

Some developers, like PD1, believes that while the direct economic impact cannot be properly measured yet, compliance could positively influence financing opportunities and property values. The respondent draws a connection to the influence of the BREEAM-NOR certification, which they are in the process of implementing through their entire portfolio, and anticipated would lead to substantial gains in the coming years. PD2 offers a more nuanced view, suggesting that while there might not be an immediate one-to-one financial benefit, the long-term reputation value and considerations like high energy prices suggested potential indirect benefits.

PD3 and PD4 responds that it is too early to observe any significant impacts. However, PD4 notes that as the taxonomy is implemented in future project, it may eventually be reflected in the project's economic outcomes.

PD5 responds that although compliance with the EU Taxonomy increases initial costs, it but may enhance financing options and clients (tenants) willingness to pay. PD5 believes this to offer a competitive edge, especially with public tenants. Nevertheless, while the EU Taxonomy might mandate compliance, the market dynamics remain uncertain. After

some consideration the respondent add that still, despite initial costs, aligning with the taxonomy might open up for broader business opportunities.

PD6 acknowledges potential short-term drawbacks from energy-efficiency measures but considers these as investments that will payback in the long term.

PD7 sees low economic impact from compliance with the taxonomy, arguing that adhering to these criteria does not necessarily involve extra costs beyond what is already allocated for sustainability measures. Initial investments in energy-efficient solutions might be costly, but he believed they typically lead to long-term savings and an increase in property value over time.

#### 4.2.1.5 Strategies for Potentially Stricter Criteria

The EU has announced that the taxonomy framework is dynamic, its criteria will be changed and updated in as new technology and innovation becomes accessible (NHO, n.d). The property developers were therefore asked about their strategy for potentially stricter criteria in the Taxonomy.

##### Question

i.	<i>Do you have a strategy for potentially stricter criteria from the EU-Taxonomy?</i>
----	---

	PD1	PD2	PD3	PD4	PD5	PD6	PD7	PD8
Have developed strategy for possible stricter taxonomy criteria	No	No	No	Yes	No	No	Yes	No

#### Strategies for Possibly Stricter Criteria

When questioned about their approach to comply with potentially stricter taxonomy criteria, it became apparent that only a minority had developed explicit strategies to address more stringent taxonomy criteria.

Some developers responds to the question with their overarching sustainability strategies for the future, that did not directly target compliance with the taxonomy, while other indicated they were in the process of deepening their knowledge of the requirements, and wanted to see how the sector adapts to the taxonomy first and receive clear guidelines from the government. Additionally, several developers acknowledged the overlap between their existing sustainability strategies and the taxonomy but emphasized that they were not solely defined by it.

Despite the lack of explicit strategies for the EU Taxonomy alignment, the prevailing focus among the developers seems to be on accomplishing BREEAM certification. This suggests a current emphasis on dominant existing certification systems rather than specific preparations for potential changes in the taxonomy criteria.

A few of the property developers also shares their opinions on potential stricter criteria, and why they did not think a strategy for stricter criteria would be necessary. One expresses skepticism about the potential for it to become stricter, questioning the necessity of it. Another developer expresses confidence in their market positions and ability to adapt, arguing that a rapid change in the taxonomy criteria wouldn't significantly impact their competitive standing.

The two developers who had laid a strategy specifically for a stricter taxonomy, revealed the following:

PD4 responds they are proactive in seeking information and being updated on the interpretation of the EU Taxonomy, while being transparent and sharing their findings with the industry. They have incorporated a strategy to be above the current energy-criteria in the EU Taxonomy for all future projects. Additionally, they are setting science-based-targets for their buildings, which is an initiative aiming for carbon reduction based on scientific methodologies. This certification also involves third-party verification by experts to ensure their plans are realistic and meet international standards (Science Based Targets, n.d).

PD7 reveals that they are future-proofing projects utilizing tools like CRREM to anticipate and prepare for stricter future regulations. The CRREM tool helps to ensure projects remain compliant in the long term. The tool evaluates energy efficiency and carbon emission, aiming to exceed current standards. PD7 stresses the importance of staying ahead of the criteria, believing they could rapidly change to be stricter, as it has in the Netherlands. They also used WELL to do a comprehensive tracking of the social sustainability in their projects and improve the well-being of tenants in their buildings.

### **Part 1: Part Summeary**

Key findings from the interviews with the property developers: Most property developers were familiar with the EU Taxonomy, but found different parts unclear. The DNSH criteria was highlighted as difficult to interpret, especially the 70% reuse requirement, where the interpretations among the property developers varied. Lack of clear and specific guidelines on how to meet and document the criteria was mentioned as challenging. The responses from the interviews indicated a lack of prior experience in implementing the taxonomy criteria in renovation of existing buildings, but most had started mapping their portfolios against the criteria. There seem to be a concern about the administrative burden of taxonomy alignment, and the practicalities of implementing the criteria. The property developers each had well-defined sustainability strategies, although all had not explicitly included every criterion of the taxonomy. Key among their strategies were creating office spaces designed to remain unchanged through tenant turnovers and strive to surpass the taxonomy energy demand requirement to future proof their projects. Several tools were also identified to be effective in assisting taxonomy implementation: BRREAM NOR, CRREM, WELL, Science Based Targets, Celsia.

## 4.2.2 Part 2: Findings from the Interviews with Interest Organisations

Interviews were conducted with three interest organization for the real estate sector, IO1, IO2, and IO3. The roles of the interviewees are described in Figure 11 below.

Interest organization	Role		
IO1	Certification Manager		
IO2	Head of Department		
IO3	Head of Industry Development, Sustainability, Urban and Regional Development		

Figure 11: Interest organizations

Source: Own work

### 4.2.2.1 Interpretation of the requirements

#### Question

- |    |   |
|----|---|
| i. | <i>How should the property developers understand the criterion in the EU Taxonomy for renovation of existing buildings?</i> |
|----|---|

IO1 explains that they do not want to interpret too much when advising property developers, as the EU Taxonomy text provides few definitions. IO1 makes an example with the 70 requirements: there is only the one sentence in the taxonomy, and no explanation from the EU about what they mean by it. So, they have adhered to the wording, interpreting what it means to facilitate, and stopping there. IO1 believe fulfilment of the criteria means property developers should ensure sorting 70% of non-hazardous construction waste *as if* the material is going to be recycled. This entails ensuring that the materials are kept away from the rain, stored properly, and have a downstream line available. Additionally, the developers must ensure proper documentation of this.

IO2 encourages property developers to follow the taxonomy criteria, despite clear loopholes. IO2 explains that they have not yet worked on many renovation projects explicitly implementing the taxonomy. However, IO2 believe there to be a conflict between sustainability measures and listed-building concerns, explaining that buildings with cultural heritage are excepted from many of the EU Taxonomy criteria. IO2 believed

giving exemptions is not the solution, but rather to work with innovative solutions to try to align everything with the overall criteria. IO2 explains that they are currently working together with developers on listed projects, where they encourage the clients not to search for loopholes to avoid sustainability efforts, but rather challenge and find solutions where there are conflicts between the taxonomy and current preservation standards.

An example where this was done successfully is a project they just finished on the port of Oslo. This office buildings were listed, but they successfully managed to externally insulate and recreate the façade without compromising its appearance.

IO3 responds that property developers should engage in understanding and implementing the EU Taxonomy criteria to stay competitive and benefit from favourable financial conditions. IO3 believes especially reporting of the criteria is difficult to understand for developers, and that they should engage with organizations like Grønn Byggallianse who can provide additional guidance.

#### 4.2.2.2 Difficulties in Implementing the Requirements

##### Question

- |    |   |
|----|---|
| i. | <i>What difficulties do you see in implementing the EU Taxonomy for renovation of existing buildings?</i> |
|----|---|

IO1 believes that the lack of explicit definitions and guidance on many critical aspects, such as the 70% requirement, poses challenges. The ambiguity around interpretations leaves much to the stakeholders' understanding, which might lead to inconsistent application of the taxonomy across projects and regions. IO1 further raises the issue that the binary criteria of achieving 30% energy improvement might not always be feasible for buildings constructed after 2000. Another challenge IO1 raises on the energy criteria, is its expected cost, especially for quite old buildings, and green loans might not be able to compensate in these cases. IO1 argues that the uncertainty surrounding the taxonomy causes property developers to question whether to implement other standards, like BREEAM, instead.



IO2 highlights that they do not have that much experience from projects implementing the EU Taxonomy yet, and that they will have more documentation in the fall. IO2 believes it will be easier to achieve the EU Taxonomy criteria for commercial projects already aiming for BREEAM, than for those who do not. Further, it will be more difficult for buildings with listed facades to comply with the energy criteria if external insulation is not allowed. Another challenge is the documentation job it will require for old existing buildings, about the state of the building and its performance, in comparison to building new. IO2 suggests that increasing the allowed electricity sharing between buildings would enable old buildings to need less energy: A new building has a substantial electricity demand, but has limited roof space for solar panels. The older building has plenty of roof space but has poor construction, and a large heating demand. Ideally, these buildings could exchange electricity and heat to maintain an overall energy balance. IO2 expressed a strong advocacy for such energy collaborations, especially where optimizing a single building on both heat and electricity demand is impossible.

The current capacity limit for sharing self-produced electricity between buildings in Norway is 1 MW, but the Norwegian Water Resources and Energy Directorate (NVE) is proposing a regulatory amendment enhancing the limit to 5 MW. The new proposal will also allow electricity to be shared with neighbouring properties (Nyhus, 2024 ).

IO3 argues that the biggest challenges to implementing the EU Taxonomy is the availability of the right people with the right competence to report correctly, and uncertainty of the reporting regime. A company will most likely need a consultant or hire a dedicated person for this role, which they do not necessarily have enough income to do. IO3 describes this as the big `Achilles heel` of the taxonomy reporting system. IO3 further highlights the challenge to adapting in the districts where one does not have the investment capacity required for the energy transition. This is because the rental income is lower, and the yield higher, which makes the value of the building less than the investment would cost.

### 4.2.2.3 What Strategies are being Advised by the Interest Organisations on Implementing the Taxonomy for Renovation of Existing Buildings?

#### Question

i.

*How do you recommend property developers implement the EU Taxonomy in renovation of existing buildings?*

IO1 have several recommendations for property developers to implement the EU Taxonomy in renovation projects. First, that it is important to map downstream recycling facilities for construction waste early and provide proper documentation. Then, implementing the BREEAM NOR v.6 certification is as it encompasses the taxonomy criteria. Additionally, early collaboration with financial institutions to demonstrate compliance with the EU Taxonomy, to ensure green loans. Furthermore, to engage industry experts, architects, and engineers early in the process to ensure effective designs. IO1 emphasize that early planning of energy efficiency measures is crucial to streamline the construction process, as delays in these plans complicate the project which raises expenses for the property developers. By closely monitoring regulatory changes, developers can also anticipate stricter requirements and avoid costly future adjustments by planning ahead. Lastly, IO1 recommends property developers to aim for environmental goal 1 in the taxonomy, as it is the only criteria focusing on climate mitigation.

IO2 highlights the importance of proper communication with the municipality and city antiquarian to expand horizons of what is possible to achieve. IO2 explains two cases where they have experience in trying to achieve a higher energy rating in existing buildings, with two distinct challenges. One, where protection interests in the building make retrofitting insulations difficult. This was solved by establishing a dialog with the city antiquarian to make an exception as long as strict style and material lines were followed. Secondly, regarding a building where after-insulation would require taking up space outside the property boundary, on property was the municipal road. This was an ongoing project, but IO2 indicated communication with the city municipality might allow for the expiation.

IO3 presents four main recommendations for property developers aiming to align with the EU Taxonomy of renovation. Firstly, the importance of property developers to properly understand the requirements in the EU Taxonomy. Secondly, IO3 believes project already pursuing established sustainability certifications (like BREEAM) are well-positioned to comply with the EU Taxonomy, as these standards can offer a structured path towards alignment. Thirdly, IO3 also suggests partnering with Grønn Byggallianse for clear guidance and assistance on documentation. Lastly, IO3 recommends property developers to future-proof their buildings for potentially stricter criteria in their portfolio. IO3 adds to this, suggesting that non-compliant buildings might become less tradeable over time.

#### 4.2.2.4 Long-term Consequences of Not Adhering to the Taxonomy Criteria

The following chapter presents the interest organisations responses on possible consequences for property developers not adhering to the EU Taxonomy criteria.

##### Question

- |    |  |
|----|--|
| i. | <i>Do you anticipate any consequences for choosing not to comply with the EU Taxonomy?</i> |
|----|--|

IO1 believes that alignment with the EU Taxonomy for property developers today is *nice to have*, but that in time, when the taxonomy is properly implemented and the finance sector starts to request it, it will become a *need to have*. IO1 explains further that because the taxonomy is currently voluntary, and financial institutions such as banks and insurance companies place so little emphasis on it because, few are meeting the criteria. The EU Taxonomy is binary, meaning that if you fail to meet one criterion, you cannot claim that the activity (i.e., the renovation project) is green. Its future impact remains uncertain, though many suggest it will significantly affect the financing conditions for a renovation project. IO1 suggests that in the long term, taxonomy alignment will become a requirement to qualify for green loans, in oppose to the practice today where a BRREAM certification is the common requirement.

IO2 notes that the consequences for not complying with the EU Taxonomy for property developers could be related to financial incentives. Compliance unlocks access to green

loans. IO2 also suggests that non-compliance could result in missing out on insurance benefits.

IO3 suggests that the consequence of not complying with the EU Taxonomy criteria is that property developers receive less favourable financing for their projects. If the project does not qualify for green financing, it becomes more expensive to fund. Over time, there is a risk that a building who does not embrace environmental and energy initiatives from the government become more difficult to sell. Therefore, it is urgent to engage projects in the journey towards energy and environmental sustainability.

IO3 further explains that there is an expectation that energy-efficient buildings will have a better standing in the market moving forward. The market show that even if there is no increased willingness to pay, there is a greater desire among tenants to move into energy-efficient buildings. In turn, this could mean the risk of vacancies and empty spaces may be lower for an energy-efficient building compared to a `grey` (less energy efficient) building.

## **Part 2: Part Summary**

Key findings from the interviews include: IO1 emphasizes the need for proper documentation and material storage to meet the taxonomy requirements. IO2 encourage property developers to work with municipalities and the city antiquarian to find innovative solutions to align with the taxonomy, despite the potential conflicts with listed-building concerns. IO3 stresses the importance of having the right people with the necessary competence for taxonomy reporting, and the need for investment capacity in districts with lower rental income. Furthermore, the organizations provide recommendations for property developers to align the EU Taxonomy, such as using BREEAM NOR v6, mapping downstream lines, and aiming for environmental goal 1. In discussing the potential long- term consequences of not adhering to the taxonomy, less favourable financing options and reduced market attractiveness was highlighted as a possible outcome.

### 4.2.3 Part 3: Findings from the Interview with Financial and Legal Advisors

To further explore the implications of the taxonomy for property developers, interviews were conducted with a law firm specializing in the taxonomy for buildings, as well as with two of Norway’s largest banks providing green financing options. These interviews were conducted aiming to broaden the scope of factors to be aware of when implementing the taxonomy of renovation for existing buildings. The role of the interviewees are described in Figure 12.

Legal/ Financial advisor				
LA1	Partner, lawyer			
FA1	Client Advisor, bank			
FA2	Head of Sustainability, bank			

Figure 12: Legal and Financial Advisors

Source: Own work

#### 4.2.3.1 Findings from the Interview with the Legal Advisor

The legal advisor interviewed is a partner of a law firm specialized in the taxonomy for the real estate sector. The interview was conducted to gain a comprehensive understanding of how the EU Taxonomy should be interpreted, explore potential gaps in the regulations, and understand how it eventually affects property developers.

##### Questions:

i.	<i>How should the taxonomy for renovation of existing buildings be understood?</i>
ii.	<i>How will alignment of the criteria be controlled?</i>
iii.	<i>Do you anticipate any consequences for choosing not to comply with the taxonomy?</i>

#### Interpretation of the EU Taxonomy

LA1 underscores the importance for property developers to grasp what they are achieving when aligning with the taxonomy criteria for renovation of existing buildings, emphasizing that the green aspect of the investment lies primarily in the investment itself.

LA1 further explains that a common misconception is that achievement of the criteria outlined in the taxonomy for renovation of existing buildings inherently render the entire building green (and allow for green rental income). LA1 clarifies that to attain certification as a green building and secure green rental income, developers must also satisfy the criteria specific to tenancy outlined in the taxonomy. These tenancy criteria are notably more stringent compared to those for renovation alone.

LA1 believes the criteria in the taxonomy are quite clear, but that many fail to understand the system. LA1 raises a question about the clarity of the criteria related to green loans, specifically whether all costs associated with renovation, including those not directly related to meeting the criteria of the taxonomy, can be included in the green loan. This is exemplified with the following: If a building undergoes a renovation to satisfy all the requirements of the taxonomy for renovation, but also includes replacing the parquet flooring throughout, can the cost of the new parquet be covered by the green loan?

LA1 believes a few questions arise when interpreting the 70 % requirement in Norwegian Law, as the Norwegian Government has not yet provided guidelines. It remains unclear whether the 70% requirement involves simply delivering waste to a waste management station, or if there is a requirement to demonstrate that the waste enters the circular economy. Additionally, LA1 points to an uncertainty regarding whether it is also a part of the requirement that property developers must explore multiple recycling options and select the most sustainable method for waste handling.

### **Control of taxonomy alignment**

LA1 explains that the direct control of Taxonomy alignment will happen through reporting in accordance with the CSRD. The CSRD is the EU directive on how organizations are supposed to report on the taxonomy (European Commission, n.d-c). Organizations must also engage a licensed auditor, who is tasked with the same level of responsibility for the taxonomy report as they are for financial statements.

Furthermore, observations from the market indicate that auditors have significantly displaced many sustainability consultants, highlighting a shift towards professionals with specialized skills in the area. A critic to this system is its high cost. LA1 points out that estimates place the average cost of reporting, which includes time lost for the company and encompasses reporting on the entire CSRD, at approximately 3 million NOK.

LA1 further suggests that indirect control will happen through financial institutions during their assessment on whether to grant a project a green loan. When applying for a green loan, the financial institution will require documentation that prove the projects alignment with the taxonomy criteria. The taxonomy alignment is going to have to be guaranteed by an independent third-party, and this is where indirect control will happen.

### **Consequences of Not Adhering to the EU Taxonomy**

LA1 explains that there are three possible challenges for property developer choosing not to follow the taxonomy criteria: (1) That securing financing might become more challenging, leading to worse financing conditions which again could affect the cash flow of the property (2) That it could affect its market appeal and property value. A green building (one that potentially generates green lease revenues) is more attractive to buyers who are increasingly focusing on sustainability in their portfolios. This demand could drive up the prices. Subsequently, a non-green (brown) building might attract fewer buyers, resulting in less competitive pricing and lower property values. (3) Lastly, it could lead to lack of tenants. If most tenants prefer to occupy green buildings, it could result in lower vacancy rates and potentially higher rents for these buildings. Simultaneously, non-green buildings might face higher vacancy rates and will have to offer lower rents to attract tenants.

LA1 suggests that all these factors will play into the expected return of a property investment, whether through direct sales or leasing. Consequently, the taxonomy will have a substantial effect on the real estate market.

LA1 does not think taxonomy alignment will be the only way to call something is green in the future, but that it might be harder to prove sustainability without the taxonomy.

#### **4.2.3.2 Findings from the Interviews with the Financial Advisors**

The EU intends for the EU taxonomy to accelerate financing for projects in need of sustainability transitions (European Commission, n.d-c). Financial institutions subject to the CSRD are required to disclose their investments. A central indicator in their

sustainability report is their `Green Asset Ratio`, which display what ratio of their investments are taxonomy aligned (Nærings- og fiskeridepartementet, 2022). Therefore, financial institutions investing in real estate projects will have a vested interest in ensuring that property developers adhere to the taxonomy criteria.

To further explore the financial implications of the taxonomy for property developers, interviews were conducted with two banks. Their responses are presented in the following.

### Questions

- i. *Is alignment with the taxonomy an absolute requirement for clients seeking a green loan in your bank for a renovation project?*
- ii. *How do you control that the client who has delivered a report on alignment with the taxonomy, is aligned?*
- iv. *How much of a renovation loan can qualify as a green loan?*
- v. *How do you perceive the risk of stricter taxonomy requirements, in terms of how a certified building today might not be in ten years?*

	FA1	FA2
<i>Is alignment with the taxonomy an absolute requirement for clients seeking a green loan in your bank for a renovation project?</i>	No	Yes

### Green Loan = Taxonomy Alignment?

FA1 explains that alignment with the taxonomy is not an absolute requirement for clients seeking a green loan for a renovation project in their bank. Nevertheless, taxonomy alignment is one two ways to be granted green loans. The other alternative is for a project to be granted a green loan is BREEAM excellent certification or equivalent. FA1 explains two main reasons the bank does not explicitly require taxonomy alignment to grant green loans: (1) don not consider the market is mature enough. If taxonomy alignment was the only way to qualify for green loans, only a very few would have qualified and (2) that they do not see their biggest market competitors requiring it.



When questioned about whether the bank planned to mandate taxonomy alignment for green loans in the future, FA1 indicates that it is unlikely unless the taxonomy becomes widely recognized, and well established within the real estate sector. Upon reflection, FA1 notes that buildings where they required BREEAM excellent certification inherently encompassed taxonomy criteria. Hence, they indirectly ensured taxonomy alignment as a minimum standard for green loans for some projects with already. For projects that do not qualify for green loans but have significant sustainability ambitions, FA1 explains they offer sustainability-linked loans. These are loans that have loan margins linked to specific, ambitious Key Performance Targets.

FA2 responds that they are probably one of the strictest financial institutions on the matter, but that they have set taxonomy alignment as a minimum requirement to grant green loans. This is mainly because of pressure from international investors. FA2 further explains that because of these strict criteria, they do not have any green loans for renovation projects yet.

FA2 further explains that as a substitute for loans that are sustainable but not aligning with the taxonomy criteria, the bank offers `sustainability linked loans`. These are common on renovation projects. For these, key performance indicators (KPIs) are set together with the client, typically linked to the taxonomy criteria, with a deadline. The KPI in the clients' projects is measured annually. If the client reaches the KPI target, the loan is provided better terms. Conversely, if the targets are not met, tighter terms are given. This will provide clients who achieve the set sustainability targets the next the best loan terms.

### **Control of Alignment**

FA1 explains that they require a third-party authorization for clients to prove alignment. The bottom line is that they need to have enough information. FA1 explains that they are still waiting for a definition of what energy rating qualifies at the top 15% in Norway, which they as of now regard to be a B or A to be safe.

Furthermore, FA1 explains the banks routine to control the 30% improvement on energy criteria. They first require the client to provide an energy certificate prior to renovation.

Then, after the renovation, the client must provide an energy assessment conducted by a third-party to verify the 30% improvement.

FA2 have set a protocol of third-party approval as a criterion for clients to be granted green loans to prevent greenwashing. This means that they ask the client to provide a certification of their project from an authorized third-party. FA2 explains that as it is still unclear who has the qualification to provide the authorization (March 2024), they have not granted any green loans to renovation projects yet. As for energy rating certification, they require that the third-party is aligned with the criteria in *Energimerkeforskriften*.

### **How much of a Renovation Loan can qualify as a Green Loan?**

FA1 explains that they have two pathways for green loans on renovation projects, depending on the client's project. The first involves specific green energy measures, such as window replacement, insulation, solar panels and roof replacement. They will offer green loans for three out of these four measures. If at least 75% of the project qualifies for a green loan, they include all measures in the green loan package. The second pathway is splitting the loan. If only 60% of the project consists of green measures, and the remaining 40% is non-green, they split the loan, as they consider the non-green part too big.

FA2 responds that only the costs directly linked to upgrading the energy demand of 30% can qualify as a green loan, believing this to be the only direct interpretation of the taxonomy as it is today. FA2 considered this to be problematic, and suggested it might be the reason banks are resistant in selling green loans to renovation projects. The taxonomy-aligned investment for the bank in the renovation project will be such a minor part of the total, that it will almost go unnoticed in the taxonomy alignment report. It will hardly impact the green asset ratio.

FA2 is also critical to the taxonomy frameworks lack of facilitation for renovating the least energy efficient buildings. The climate impact of improving from an F to a D is far greater than that of moving from a C to an A, but this distinction is not addressed in the current taxonomy.

### **Perceived Risk of Stricter Taxonomy Requirements**

FA1 explains that because of the potential risk of stricter taxonomy requirements, they are implementing a clearer differentiation in their financial assessments. They are currently estimating the investment need differentiated among the four lowest energy rating classes. Specifically, buildings classified as energy class G building will incur a higher Capex per square meter in their cash flow analysis compared to those with a class C rating.

Furthermore, FA1 explains that market dynamics, regulatory pressures, and reputational risk are considerations in their risk assessment. FA1 explains a growing trend where tenants prefer buildings with better energy classifications during re-letting or contract renegotiations. The bank is therefore encouraging clients with G-class buildings who successfully upgrade their energy performance with more favourable loan terms and conditions (sustainability-linked loans).

FA2 explains that the risk of stricter taxonomy requirements is mitigated through 'grandfathering' rules in their bank. These rules ensure that activities or loans deemed green at the time of inclusion remain classified as such throughout their term, despite any later changes in the criteria. This practice provides predictability for investors and limits impact of regulatory changes, as only a small portion of the portfolio may eventually fall out of compliance.

In the context of commercial loans, the typical terms of three to five years (or occasionally up to seven years) mean that any refinancing would need to comply with the current criteria. Therefore, FA1 explains that the impact of stricter future requirements will be that non-compliant loans would simply not be classified as green upon refinancing, and thereby lose their benefits.

### **Part 3: Part Summary**

Key findings from the interviews with a legal advisor and two financial advisors include: LA1 highlighted the importance for property developers to understand the EU Taxonomy criteria, particularly the distinction between achieving a taxonomy certified green investment versus a taxonomy certified green building. The interviews with the financial

advisors highlighted the need for property developers to clarify how their project can meet and report green loan requirements. The interviews revealed potential consequences of not adhering to the taxonomy, including reduced financing options, lower property values, and decreased market appeal. The interviews with the two banks suggested that there are other ways to achieve green loans, without aligning with the taxonomy. One bank mandated strict alignment as a minimum criterion, while the other one suggested it as one out of more sustainable certifications qualifying for green loans. The findings suggest that property developers should consider the investment horizon and potential risks of not complying with the Taxonomy criteria, as well as benefits of early adoption.

## 5. Discussion

### 5.1 Discussion on the research questions

In the following chapter, the study will proceed to address the research questions by integrating the theoretical framework outlined in chapter 2 and the findings presented in chapter 4.

#### 5.1.1. Economic and environmental impacts of compliance with the EU Taxonomy

**Research question 1:** *How does compliance with the EU Taxonomy in renovation projects affect the economic and environmental results for property developers?*

Opinions are split among the property developers regarding the economic implication for the EU Taxonomy. Some perceives compliance with the EU Taxonomy as a financial burden, while others believe that it will not add additional costs beyond their existing sustainability initiatives. Particularly some of the smaller property developers expresses concerns about the extensive administrative burden associated with aligning the EU Taxonomy.

On the other hand, some suggests indirect economic consequences of taxonomy alignment. Property developers aligning their projects with the taxonomy could benefit from enhanced reputation and market positioning through, and this could even offset some of the initial cost. It is also suggested that the investments in energy-efficient solutions, could lead to long-term savings and an increase in property value over time.

When considering the environmental impact of the EU Taxonomy compliance in renovation projects, divergent viewpoints also emerge among the property developers. Where some believes the EU Taxonomy will have a explicitly positive impact on the environment, others were sceptical. Some believes that the taxonomy for renovation might not always yield the most sustainable outcome. The argument is that the stringent criteria regarding water usage and energy demand can potentially lead to premature disposal of materials that could otherwise be utilized for many more years.

The Interest organizations shares the view that in the long term, non-compliant buildings would be less tradable. IO1 and IO3 both suggests that while taxonomy alignment is currently voluntary, it is expected to become more important as financial institutions increasingly emphasize it. IO3 believes compliance with the taxonomy could improve the buildings market standing and attractiveness to tenants, thereby enhancing economic outcomes.

IO1 highlights the lack of explicit definitions within the EU Taxonomy, particularly regarding the 70% reuse requirement. This ambiguity could lead to inconsistent applications and affect economic outcomes due to potential inefficiencies and higher cost.

The legal advisor (LA1) highlights the importance of proper understanding of the nuances of the taxonomy framework for developers to effectively navigate it. LA1 emphasizes that the category of the taxonomy property developers chose to align, will play a pivotal role for potential gain of their investment in the long term. Alignment with the taxonomy for renovation, will for example not lead to green rental income.

The financial advisors believe compliance with the EU Taxonomy will provide access to green loans, and a competitive advantage to those with regular loans. However, as FA1 stated, taxonomy compliance is not an absolute requirement to receive green loans in every bank.

The question can also be addressed through a theoretical lens. North (1990) uses the analogy of a game to explain how institutions serve as the rules-maker that shape how the participants (organizations) interact and the economic outcome over time (North, 1990, pp. 3-4). In this context, The EU Taxonomy can be regarded as a formal rule that guides the actions of property developers (organizations). Organizations will inevitably adapt to become winners within the institutional framework (North, 1990, p. 5). The interviews revealed a considerable motivation for implementing BRREAM in projects, as it was considered to add market value, increase market competitiveness, and attract tenants. Through the lens of institutional theory, BRREAM certification is therefore the current “winning” strategy for property developers, and not taxonomy alignment. North (1990) further explains that the effectiveness of rules applied by institutions depend on the

enforcement (North, 1990, p. 5). This indicates that in order for more property developers to align the EU Taxonomy, the enforcement must be stronger.

The theory of institutional isomorphism by DiMaggio and Powell (1983) can also explain how EU Taxonomy compliance might affect property developers over time. Isomorphism explains the notion that organizations within the same industry become increasingly similar in their behaviour over time (DiMaggio & Powell, 1983, p. 147). If, as suggested by North (1990), the winning strategy in the property development market is considered to be taxonomy alignment, mimetic and normative forces will lead other property developers to follow. Still, as described in the institutional theory by North (1990), the coercive pressure will depend on the enforcement of the regulation. If compliance with the taxonomy becomes the norm over time, and what is considered professional, normative pressures might lead to non-compliant projects to lose value over time (DiMaggio & Powell, 1983, p. 152).

**Research question 2:** *How does compliance with the EU Taxonomy for renovation impact the real estate value and market appeal for renovated office buildings?*

As the EU Taxonomy is only just being implemented in Norway, and the interviews suggest that it is early to measure how real estate value and market appeal is impacted by compliance. However, drawing from the property developers experience, BREEAM certified buildings seem to have considerably larger market appeal. Suggesting that currently, the BREEAM certifications influence the market appeal to a larger extent than EU Taxonomy alignment.

A study from Herud & Bye (2021) found that sales and rental prices are higher for office buildings with A and B energy ratings. In their study they calculated the cost and benefits of upgrading a fictional office portfolio from `brown` to `green`. They found that property owners of buildings with qualified as green could enjoy higher tenancy rents, higher demands and reduced financial cost (Herud & Bye, 2021, p. 90). On the contrary, their analysis suggests that the high investment cost to render the renovation could make the renovation unprofitable (Herud & Bye, 2021, p. 2).

FA1 notes a growing trend where tenants prefer buildings with better energy classifications during re-letting or contract renegotiations. This could predict that compliance with the EU Taxonomy enhances a buildings market appeal by meeting energy efficiency standards that are increasingly valued by tenants. FA2 mentions that their strict EU Taxonomy alignment requirement is driven by international investor pressure, which indicates that aligned properties might attract more investors, enhancing their value and market appeal.

Institutional theory argue that organizations will always change to become the winner of the game (North, 1990, p. 5). The institutional rule that is the EU Taxonomy might become the norm of how property developers develop projects. If it is considered “winning” to do so, compliance might positively impact the real estate value and market appeal, or alternatively, negatively impact what does not comply. Another important point from North, is that effectiveness of the institution depends on the how the rules are being enforced (North, 1990, p. 5). The informal rules of taxonomy are voluntary, but incentives are promised of green loans and other goods. And pressure from investors. Still, if these incentives are not large enough, “winning” strategy might not be to align the taxonomy, but perhaps another sustainability measure. In this case, compliance with the EU Taxonomy would not affect the real estate value.

Viewed through the lens of institutional isomorphism, compliance with the EU Taxonomy can significantly influence the market appeal for renovated buildings by leveraging the mechanisms of coercive, mimetic, and normative isomorphism. The EU Taxonomy, functioning as a regulatory framework, embodies the principles of coercive isomorphism, wherein organizations align their practices with regulatory mandates. Property developers that align their projects with the EU Taxonomy signal to the market their compliance with regulatory requirements, thereby mitigating perceived risks associated with potential future regulatory changes and positing themselves as legitimate sustainable investments. Consequently, the market appeal and value of the project might be enhanced.



### 5.1.2 The effect of green loans

**Research question 3:** *What role does the potential of green loans play in supporting compliance with the EU Taxonomy for renovation projects?*

Out of eight property developers, five reports having green loans for their projects. Three of these five emphasizes that the benefits of green loans were insufficient to financially justify the investment cost. Another perspective highlighted was that while the financial perks were inadequate, green loans could have long-term positive impact on the firm's reputation and market value of the building, especially if it also led to a BREEAM certification.

IO1 believes that green loans were not compensating the cost of renovation to adhere to the taxonomy criteria enough, especially the costs of aligning the energy criteria for old buildings.

LA1 suggests that the impact of green loans largely depends on the specific terms of each loan. LA1 questions the extent to which renovation costs, including those not directly related to meeting the EU Taxonomy criteria, could be covered by green loans.

The financial advisors provide differing perspectives on this issue. FA1 explains that their bank holds a holistic approach, where they offer a green loan package if at least 75% of the project qualified for a green loan criterion.

FA2 have a stricter approach, asserting that only costs directly linked to achieving taxonomy alignment would be qualify for green loans, arguing that was be the only direct interpretation of the current taxonomy framework.

The interviews with the financial advisors further indicated that taxonomy alignment is not universally required to be granted green loans. FA1 explains that taxonomy alignment is only one of two ways to qualify for a green loan in their bank. The other way is by proving a BREEAM or equivalent certification. This is as they do not consider the market mature enough, and because market competition is not requiring alignment. FA2 explains they have an absolute criterion of alignment to grant green loans, emphasizing that they are probably one of the strictest on the market.

The fact that alignment is not an absolute criterion could weaken the direct effect of green loans to push taxonomy alignment.

A theoretical lens can also be applied to this question. Norths (1990) framework of institutions can provide a valuable viewpoint to understand the role of green loans in supporting compliance with the EU Taxonomy. The green loans can be considered as an enforcement power of the EU Taxonomy in the context of the institution, incentivizing the property developers to follow the rules.

Further the effect of green loans could be explained through normative isomorphism. If having green loans becomes the professional norm for sustainability, normative pressures would force other property developers to follow (DiMaggio & Powell, 1983, p. 152). The interaction between formal institutions and organizational behaviour underscores the transformative potential of green loans in driving sustainable development in the real estate sector.

### 5.1.3 Tools for effective implementation

**Research question 4:** *What tools are property developers currently using to facilitate implementation of the EU Taxonomy?*

The interviews reveal several tools available for property developers to facilitate the implementation of the EU Taxonomy:

- BRREAM NOR v.6 incorporates the EU Taxonomy criteria.
- BRREAM was reported to be a useful tool in implementing the EU Taxonomy. This is well-established within the real estate sector, and all eight property developers reporting using or aiming for this certification on their buildings
- CRREM tool was also used. This tool was reported to be especially useful for making sure the renovation projects stay ahead of potentially stricter criteria from the EU, as the tool continuously measures how the project is aligning the Paris 2050 targets (CRREM, n.d).

- The sustainability certification WELL was mentioned as a useful tool to track and improve the well-being of buildings occupants. This could possibly be a way of reporting on the taxonomy minimum safeguard criteria (European Commission, n.d-d).
- Science-Based- Target was another tool mentioned, which helps companies to set scientifically based target with specific measures on how they can reduce emissions. (Science Based Targets, n.d).
- Celsia was mentioned to be a useful reporting service tool, easing the reporting job.

**Research question 5:** *What will happen to the existing certifications systems if the EU Taxonomy becomes dominant?*

The interviews of the property developers indicate a stronger motivation to implement BREEAM than the EU Taxonomy. BREEAM is seemingly more commonly recognized and valued sustainability standard in the real estate sector. The BREEAM could therefore be considered the current informal rule in Norths (1990) game analogy.

If the EU Taxonomy becomes dominant, it will replace the BREEAM as the new rule of behaviour in the same context. BREEAM and other existing certification organizations will according to North (1990) change to become the winners in the institution. In practice, this would mean they would probably be forced to implement the taxonomy in their own certification in order to be competitive.

This scenario can further be supported through institutional isomorphism. If the EU Taxonomy becomes dominant, it could exert coercive pressures on existing certification systems to implement its standards and criteria. Existing certification practices may also mimic the EU Taxonomy classification to remain legitimate in the industry, as stakeholders might start to consider certifications aligned with the EU-taxonomy more valuable. Professionalization within real estate sector might also lead to establishment of norms favouring alignment with the EU Taxonomy as a sustainability measure, and normative pressures could force existing certifications to align (DiMaggio and Powell,

1983). An example of this can already be seen in the BREEAM certification *BREEAM NOR v.6*, where the taxonomy criteria has been implemented.

**Research question 6:** *What are the consequences for developers deciding not to comply with the EU Taxonomy?*

The interest organizations, financial and legal advisor seemed concerned about the potential consequences of not complying with the taxonomy. Believing long-term consequences of not adhering to the taxonomy could cause less favourable financing options, reduced market attractiveness, and consequently a reduced market value.

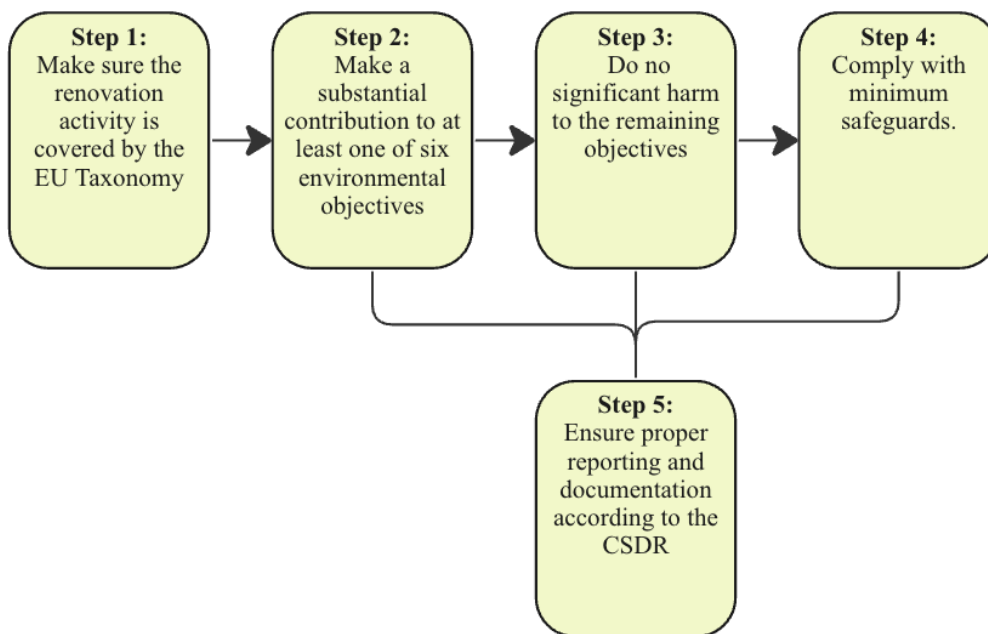
Institutional theory (North, 1990) will argue that organizations will adapt the best practice in the institution in order to become the winner. If the winning strategy is alignment with the taxonomy, the consequences of not adhering will be losing the game. In the context of real estate renovation projects, this could mean loss of investors, loss of real estate value and loss of tenants. However, this will depend on the enforcement power of the taxonomy. As North argues the effectiveness rules in the institutions depend on how they are enforced (North, 1990, p. 4).

The theory of Institutional isomorphism (DiMaggio & Powell, 1983) also suggests possible consequences for property developers choosing not to comply. If compliance with the EU Taxonomy becomes the norm in the real estate sector, normative pressures within the industry will drive developers to conform (DiMaggio & Powell, 1983, p. 152). Developers who opt not to comply with the EU Taxonomy may as a consequence face scepticism from stakeholder, including investors, consumers, and regulatory bodies, who will expect adherence to the industry's best practice. The institutional isomorphism also applies to the group of stakeholders, and normative, coercive, and mimetic pressures within their industry might lead to favouring investing in EU Taxonomy aligned activities. However, as according to North's (1990) institutional theory, the normative pressures will only occur if compliance with the taxonomy becomes the norm – depending on its enforcement power.

## 5.2 Measures for effective alignment of the EU Taxonomy criteria for renovation projects

**Problem statement:** *What specific measures can property developers take to ensure an efficient implementation of the EU Taxonomy for renovation of existing buildings?*

In order to achieve compliance with the EU- taxonomy for renovation of existing buildings, the project must qualify as a “renovation”, comply with the four steps of the taxonomy classification system, and it must be reported on in accordance to the CSRD directive, as described in point 1.2.2. This process is illustrated in figure 13. In the following, a step-by-step guidance will be provided to describe how alignment with the taxonomy for renovation of existing buildings can be achieved. The taxonomy is binary criteria are binary, meaning the project must align with all the criteria to be taxonomy aligned. The steps are illustrated in Figure 13.



*Figure 13 Five steps to EU Taxonomy alignment*

Source: Own work

**Step 1. Ensure the renovation activity is covered by the EU Taxonomy renovation of existing building criteria.**

- The first step is to get a proper overview of the EU Taxonomy Technical Screening Criteria (TSC). This is to ensure that the renovation project is within the scope of the TSC, in other words, that it qualifies as the economic activity `renovation of existing buildings`. The project must be within the scope of a renovation, not constructing an entirely new building, to be eligible for the EU Taxonomy renovation activity.

**Step 2. Make a “substantial contribution” to at least one of six environmental objectives.**

The economic activity must make a substantial contribution to one of six environmental objectives. Simultaneously, the activity must not make any significant negative impact to the other five. A description of how negative impact is avoided is described in a list of “do-no-significant-harm” criteria and will be discussed in step 2 (Ministry of Finance, 2024). The six objectives are illustrated in Figure 14.

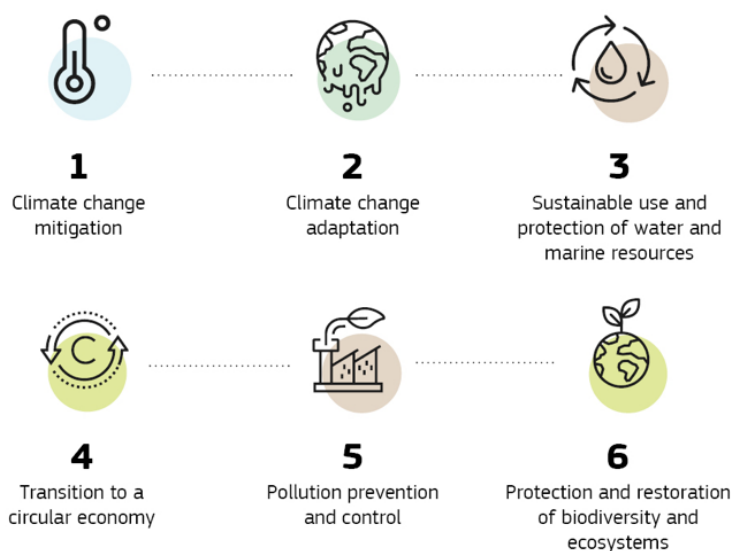


Figure 14: *The six sustainability objectives*, n.d-h, European Commission (<https://ec.europa.eu/sustainable-finance-taxonomy/>)

As of 12 May 2024, there has only been made technical screening criteria for three of the environmental objectives, which means only these three can be reported on. Green Building Alliance suggests alignment with environmental objective 1 *Climate change mitigation* in their sustainability reporting guide (Grønn Byggallianse, 2024, p.15). According to the interviews with IO1 and IO2, this is due to it being the only objective

out of the three there is criteria for, that is working to reduce climate change. It was also indicated that this is the easier criteria to report on.

Based on this knowledge, only the substantial contribution criteria for environmental objective 1: climate change mitigation, will be accounted for.

***Environmental  
objective 1***

<p><i>1. Climate change mitigation</i></p>	<p>“The building renovation complies with the applicable requirements for major renovations. Alternatively, it leads to a reduction of primary energy demand (PED) of at least 30 %.” (European Commission, n.d-c)</p>
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**Alignment:**

- To comply with environmental objective 1, the renovation of the building must be conducted in compliance with the national building acts and regulations in TEK 17 (Byggteknisk forskrift) (Direktoratet for byggkvalitet, n.d). Alternatively, the renovation leads to a reduction of 30% of its energy demand (European Commission, n.d-c). The Norwegian Government has defined the primary energy factor to 1,0. This means the energy demand of a building is calculated from delivered energy. As a result of this, the energy rating from energy certificates can be used as document reduction of energy demand (Grønn Byggallianse, 2024, p.40). An important note is that delivered energy does not rely on how much energy the building demands as a result of its use, but is based on a standardized calculation, where the buildings technical installations and qualities are being evaluated. demand based on. The energy rating system was further explained in point 2.4.1.
- According to the interviews conducted with the property developers, the feasibility of this approach is inversely related to the initial energy rating of the

building. Upgrading from F to a C is considerably easier than updating from a C to an A.

- It is important to plan for the alignment from the initial stage of planning the project. Early planning with the architect and entrepreneur for the project’s energy-saving targets will be cost saving for the project.

**Step 3. Do no significant harm to the remaining objectives**

The third step is to ensure the activity is not doing any significant harm to the remaining five objectives. To achieve compliance to this step, the renovation activity must comply with all the DNSH criteria (European Commission, 2024). If the activity fails to adhere on any one of the five criteria, it will automatically disqualify from being environmentally sustainable (European Commission, 2023, p. 22). Note that no criteria have been made for DNSH criteria 5 as per may 2024 (European Commission, n.d-d). The do-no-significant-harm criteria are listed in the following:

***The DNSH criteria***

<p><i>1. Climate change adaption</i></p>	<p>“The activity complies with the criteria set out in Appendix A to this Annex.” (European Commission, n.d-d)</p>
<p><i>2.Sustainable use and protection of water and marine resources</i></p>	<p>“Where installed as part of the renovation works, except for renovation works in residential building units, the specified water use for the following water appliances is attested by product datasheets, a building certification or an existing product label in the Union, in accordance with the technical specifications laid down in Appendix E to this Annex:</p> <ol style="list-style-type: none"> <li>1. wash hand basin taps and kitchen taps have a maximum water flow of 6 litres/min;</li> <li>2. showers have a maximum water flow of 8 litres/min;</li> <li>3. WCs, including suites, bowls and flushing cisterns, have a full flush volume of a maximum of 6 litres and a maximum average flush volume of 3,5 litres;</li> </ol>



	<p>4. urinals use a maximum of 2 litres/bowl/hour. Flushing urinals have a maximum full flush volume of 1 litre.”</p> <p>(European Commission, n.d-d)</p>
<p><i>3. Transition to a circular economy</i></p>	<p>“At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site is prepared for reuse, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol(367). Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate rEUse and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.</p> <p>Building designs and construction techniques support circularity and in particular demonstrate, with reference to ISO 20887(368) or other standards for assessing the disassembly or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.”</p> <p>(European Commission, n.d-d)</p>
<p><i>4. Pollution prevention and control</i></p>	<p>“Building components and materials used in the construction comply with the criteria set out in Appendix C to this Annex.</p> <p>Building components and materials used in the building renovation that may come into contact with occupiers(369) emit less than 0,06 mg of formaldehyde per m<sup>3</sup> of test chamber air upon testing in accordance with the conditions specified in Annex XVII to Regulation (EC) No 1907/2006 and less than 0,001 mg of other categories 1A and 1B carcinogenic volatile organic compounds per m<sup>3</sup> of test chamber air, upon testing in accordance</p>

	<p>with CEN/EN 16516 or ISO 16000-3:2011(370) or other equivalent standardised test conditions and determination methods(371).</p> <p>Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.”</p> <p>(European Commission, n.d-d)</p>
5. Protection and restoration of biodiversity and ecosystems	N/A

**Alignment:**

1. *Climate change adaption*

- The DNSH criteria regarding climate change adaption requires a climate risk analysis in accordance to best available practices. For example, reports from the UN climate council. The analysis must be proportional with the size of the effects of the economic activity. Additionally, it should identify the climate risks associated with the renovation activity (Grønn Byggallianse, 2024, p. 39).

2. *Sustainable use and protection of water and marine resources.*

- Ensure the water usage of the building does not exceed the maximum listed in the criteria. Instead of re-using faucet mixers from the original building, these might have to be replaced for new ones with the adequate water usage, as the requirement is non-negotiable.

3. *Transition to a circular economy*

- To effectively meet the criteria of preparing 70% of non-hazardous waste for reuse, four steps can be taken:
  - i. Find out what of the construction waste can be considered non-hazardous. “Non-hazardous” waste is defined by the Norwegian government waste regulation chapter 11, which has been harmonized with the EU regulation.

This regulation specifies what constitutes hazardous waste. Material not listed in the regulation is therefore considered non-hazardous (Regjeringen, 2024).

- ii. Establish a clear agreement with your contractor for the specific project to clarify expectations regarding waste reporting. Ensure they have a plan for proper storage and documentation of the waste management.
- iii. Explore the market for software solutions that can streamline the waste management process.
- iv. Ensure that waste reporting begins from day one to prevent additional cost or loss of documentation.

#### 4. *Pollution prevention and control*

- Prior to starting the renovation project, ensure the renovation project are using proper pollution control.
- The project must follow relevant pollution regulation from the EU, as the REACH framework (Grønn Byggallianse, 2024, p. 40).
- The project must implement actions to reduce noise, dust and pollutant emissions during the renovation.

#### **Step 4. Comply with minimum safeguards**

The minimum safeguard requirement involves compliance with minimum human and labour rights standards, in accordance with the principles in the European Pillar of Social Rights (European Commission, 2023, p. 29). The two minimum safeguards criteria are listed below:

<i>Minimum safeguards</i>	“1. The minimum safeguards referred to in point (c) of Article 3 shall be procedures implemented by an undertaking that is carrying out an economic activity to ensure the alignment with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Rights.
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2. When implementing the procedures referred to in paragraph 1 of this Article, undertakings shall adhere to the principle of ‘do no significant harm’ referred to in point (17) of Article 2 of Regulation (EU) 2019/2088.”

(European Commission, n.d-d)

### **Alignment:**

- To meet this criterion, the property developer must demonstrate that their company has defined the relevant “policies, procedures, systems and indicators that are necessary to adhere to the UN Guiding Principles on Business and Human rights and the OECD Guidelines for Multinational Enterprises as referred to in Article 18(1) of the Taxonomy Regulation” (European Commission, 2023, p. 30).
- According to the European Commission’s Taxonomy User guide (2024), the following are examples of what a minimum safeguard report should include:
  - “(1) your labour and governance policies, and whether these include compliance with all eight conventions;
  - (2) a definition of your labour management systems;
  - (3) key performance indicators on elements such as health and safety track records, gender mobility or gender pay gap; and,
  - (4) audits of sites and/or suppliers or subcontractors on those dimensions.”(European Commission, 2023, p. 30).

### **Step 5. Ensure proper reporting and documentation.**

- Conducting proper documentation from start is crucial. As recommended by the interest organization, early engagement with the bank of what they consider appropriate documentation can lead to cost reduction.
- The documentation of alignment must be certified by a neutral third party to be considered aligned according to FA1 and FA2, and ensuring this is important for the legitimacy of the report.

## Summary

The pros of aligning with the EU Taxonomy for renovation of existing buildings can be summarized in five steps:

1. **Start early.** After checking whether the renovation project qualifies as a renovation in the EU Terms, measures should be taking immediate to plan for aligning the criteria in the project. This means establishing with the bank how they want documentation, and their specific criteria for green loans. Make sure to report everything from the start, so you avoid doing any reporting twice.
2. **Ensure compliance with an environmental objective.** Environmental objective 1: Climate change mitigation is recommended in this guide. To effectively ensure a 30% reduction in energy demand, this must be planned for in the initial process. Engage architect and entrepreneur in this, using their competence to find smart solutions for energy saving, clarifying the target from start. If the building is listed and this puts a constrain to the renovation, engage early with the city municipality to discuss possible solutions.
3. **Ensure compliance with the DNSH criteria.** Make sure the project aligns with the DNSH criteria. In regard to the 70% requirement, this is a criterion the entrepreneur of the project must be instructed to follow. Ensure that the material prepared for reuse is properly stored and documented.
4. **Comply with minimum safeguards.** Ensure your company comply with minimum human and labour rights standards, as listed in the UN Guiding Principles on Business and Human rights and the OECD Guidelines for Multinational Enterprises.
5. **Ensure proper reporting and documentation.**

## 6. Conclusion

### 6.1 General

This thesis has, within the frame of 30 credits, explored different aspects of the EU Taxonomy property developers should consider when implementing the Taxonomy for renovation of existing buildings. The study was conducted using method triangulation consisting of qualitative interviews, a literature review and by applying institutional and institutional isomorphic theory.

The study found that institutional theory by North (1990) and the more narrow take of institutional isomorphism by DiMaggio & Powell (1983) must be considered productive in explaining the behaviour of property developers in response to the EU Taxonomy.

The study found that the property developers lacked specific strategies to implement the EU Taxonomy. Despite all respondents expressing clear and ambitious sustainability goals and strategies, only a few had formulated concrete strategies for implementation the taxonomy into their renovation projects. The study revealed a disparity between the property developers adopting a defensive stance, having conducted little research in the taxonomy, and those taking a proactive approach, like dedicating specialized teams to worked on taxonomy implementation as part of their broader sustainability strategy. This suggests a lack of motivation within the real estate sector to implement the EU Taxonomy.

Furthermore, the study revealed different perspectives on the importance of adherence to the taxonomy from the different actors. Where most of the property developers were seemingly not rushing for taxonomy alignment, the interest organizations and financial institutions expressed a concern about the loss of value in buildings failing to adhere the taxonomy criteria.

An important insight from the research, highlighted by the legal advisor, underscores a fundamental question: what tangible benefits are actually achieved by aligning with the EU Taxonomy for renovation of existing buildings? This critical question could explain the hesitancy among developers to act in implementing the taxonomy.

In the following, conclusions to the research questions will be presented.

*How does compliance with the EU-taxonomy in renovation of a project affect the economic and environmental results for property developers?*

Compliance with the EU Taxonomy in renovation projects might significantly influence the economic and environmental outcomes for property developers in the future in terms of economic influence, the opinions were split. Some property developers believe taxonomy implementation will pose a financial burden for renovation projects, other believed that it would lead to enhanced reputation and market position over time. Institutional theory supports that if alignment with the taxonomy becomes the “winning strategy” over time, it will offer economic benefits in the market, and non-compliant projects might face reputational damage and limited market access (North, 1990). While most of the respondents were positive to the environmental impact on implementing the taxonomy in renovation projects, a concern was raised about potential negative impact on the environment because it could lead to excessive renovation.

*How does compliance with the EU-taxonomy impact the real estate value and market appeal for renovated office buildings?*

Compliance with the EU Taxonomy is likely to affect both the real estate value and market appeal for renovated office buildings. The research conducted suggest a similar effect on market appeal for taxonomy alignment as for BREEAM certifications are now.

*What role does the potential of green loans play in supporting compliance with the EU-taxonomy for renovation projects?*

The potential of green financing does not play the decisive factor in supporting compliance with the EU Taxonomy for renovation of office buildings today. Most of the property developers reported that the current available green loans do not make up for the investment in renovation to meet the EU Taxonomy criteria. It was further revealed that the effect might depend on the investment horizon of the projects. Another finding the extent of costs relevant to the renovation qualifying as a green loan seem to vary depending on the bank. FA1 revealed a holistic approach where a project aligning with the taxonomy, or BREEAM target could get a green package loan, covering all expenses. FA2 explained that only the investment directly linked to meet the taxonomy criteria could be granted green loans terms.

*What tools are property developers currently using to facilitate implementation of the EU Taxonomy?*

The research revealed that there are several tools that property developers can use to facilitate implementation of the EU Taxonomy. BREEAM NOR v6, CRREAM, WELL and Science Based Targets was highlighted as efficient tools to provide property developers with specific measures for their buildings. Furthermore, engaging with digital waste mapping tools, and reporting tools as Celia and was recommended.

*What are the consequences for developers deciding not to comply with the EU Taxonomy?*

Property developers who opt not to comply with the EU Taxonomy might face reputational damage, restricted access to financing, and diminished market competitiveness. Both institutional theory and the connected isomorphism suggest substantial consequences who chose not to adhere to the taxonomy. According to institutional theory, if the prevailing “winning” strategy within the real estate industry become alignment with the criteria, failing to adhere these standards could result in losing investors, reduced real estate value and reduced tenant interest. Furthermore, isomorphic pressures may lead to a preference for investing in EU Taxonomy-aligned activities, driven by normative, coercive, and mimetic pressures within the industry.

However, these consequences all rely on the enforcement power of the EU Taxonomy. If the EU Taxonomy is not enforced either by negative sanctions for not adhering, or positive benefits of adhering, it will not influence alignment to become a winning strategy. Consequently, non-alignment will not have any consequences for property developers.

*What will happen to the existing certifications systems if the EU-taxonomy becomes dominant?*

The dominance of the EU Taxonomy could potentially reshape existing certification systems. Institutional isomorphism theory suggests that normative, coercive, and mimetic pressures will lead existing sustainability certification standard to adopt the taxonomy standards to maintain their relevance and legitimacy.



## 6.2 Conclusion to the problem statement

*What specific measures can property developers take to ensure an efficient implementation of the EU Taxonomy for renovation of existing buildings?*

The study revealed that the most important measure for property developers to ensure an effective alignment process is to start planning early. Engaging the entrepreneur and architect early in aligning the technical screening criteria is crucial for saving cost. By others, the taxonomy criteria for renovation require mapping of pollution and waste through the entire project, and the process will be smoother if this is initially planned for.

Further, early communication with the bank is recommended, to discuss how the project can be within their frame of green loans. Subsequently, it is crucial for property developers to stay updated on the taxonomy requirements, as they are developing. Staying updated on available relevant market tools for implementation of the taxonomy is also important, as they might reduce the cost and increase efficiency of implementation. As highlighted by the financial institutions FA1 and FA2, a proper certification on Taxonomy alignment does require an independent third-party approval, and so prior to engaging with a reporting tool, it is crucial to research the legitimacy of it.

A possible strategy for implementing the EU Taxonomy, while the market is still limited of solutions, is utilizing existing sustainability certification systems like BREEAM NOR, which can provide structured paths to taxonomy alignment. Several digital mapping tools for waste management and material reuse are also available. Additionally, digital reporting tools, such as Celsia, can ease the reporting process.

The EU Taxonomy requirements will gradually become stricter. The study also researched strategies for meeting a potential stricter requirement of the taxonomy. The study revealed that property developers should prepare for meeting these requirements by aiming to stay ahead of the development. The CRREM tool and Science Based Targets was highlighted as useful for this purpose.

## **6.3 Final remarks**

### **6.3.1 Practical and theoretical implications of the study**

One of the practical implications of this study is highlighting the difficulties with the taxonomy for renovation of existing buildings that Norwegian property developers are facing. By acknowledging these difficulties, like addressing the lack of clear official Norwegian translation of the Taxonomy, the reporting can be more achievable for developers, and support the taxonomy in its sustainability targets.

Additionally, the study has provided a snapshot of Norwegian property developers positions towards the taxonomy. The finding implies a lack specific strategies of implementation of the EU Taxonomy in renovation projects in Norway. The EU Taxonomy is still in its early stages, but the first developers will have to report this year and next. The seeming lack of action from prominent Norwegian property developers to develop strategies, suggest that the EU Taxonomy is not regarded as serious enough.

The property developers in this study are acting rational, they are serious actors in the real estate sector, who have integrated clear sustainability measures in their renovation projects. This indicates that the EU Taxonomy framework is lacking enforcement power.

This study also provides important theoretical implications for institutional theory and institutional isomorphism. The inactive behaviour of the property developers towards implementing EU Taxonomy in renovation projects can be explained through isomorphic forces. Furthermore, the lack of proactive action can be attributed to insufficient enforcement. This aligns with Norths (1990) suggestion that weak institutional enforcement results in slower adaption of regulations. Consequently, the empirical evidence from this study strengthens to core concepts of institutional theory and institutional isomorphism. It also demonstrated the theories relevance is understanding organizational responses to new regulatory frameworks.

### **6.3.2 Reflection of my own professional work**

The work with the thesis has provided me with a comprehensive understanding of the EU Taxonomy framework, and its challenges for property developers. It took time to get an overview of the legislative frameworks surrounding the taxonomy, and further to navigate

what had been implemented and not in Norwegian Law. The work has further improved my analytical skills and ability to apply theoretical concepts to practical problems.

The initial idea of the thesis was that the prominent property developers would already have clear strategies for implementing the EU Taxonomy for renovation. However, the study proved the market is still evolving, and that there is a gap between the regulation and its adoption. Therefore, a weakness in the study is that the recommended method for implementation has not been applied or compared to others. Additionally, the study has collected property developers based on their location, renovation projects and sustainability profile. The smallest developers interviewed will not have reports as the framework is now. If only the largest property developers in Norway were interviewed, who must report on the taxonomy in next year, the study might have led to a different result.

Additionally, a limitation of the study is the variation in size of the property developers involved. With only two large developers, who are required to report in 2024, and the remaining being smaller enterprises, the study may portray the market as less mature than it actually is. In hindsight, including more large property developers might have provided a more accurate result of market readiness towards the EU Taxonomy.

### **6.3.3 Suggestions for further research**

In 2024 the first property developers will have to report to what degree their renovation activities are Taxonomy aligned. The reporting landscape is still adapting to the new reporting system. For future studies it would be interesting to investigate and compare the different developers' strategies when the taxonomy has become more established, and what will have become the most effective solution.

Another starting point for additional research could be to compare the market value of sustainable buildings with BREEAM IN-use certifications or equivalent with office buildings against those which are (also) EU Taxonomy aligned, to see if taxonomy alignment influences the property value.

## 7. References

- Barral, A. C. (2023). *Understanding the Relationship Between CSRD, EU Taxonomy, and SFDR: A Comprehensive Guide*. Greenomy.  
<https://www.greenomy.io/blog/relationships-csrd-eu-taxonomy-sfdr>
- Birkelund, V. S. (2023, March 15 2024). *CSRD trer i kraft i EU. Hva nå?* Pwc. Retrieved 15 March from <https://blogg.pwc.no/finansbloggen/csr-d-i-et-st%C3%B8reb%C3%A6rekraftsperspektiv>
- CRREM. (n.d.). Objectives & Benefits. CRREM. Retrieved March 19 from <https://www.CRREM.EU/objectives-and-benefits/>
- CRREM (n.d - a). *Asset Level Stranding Diagram* [illustration]  
<https://www.crrem.eu/objectives-and-benefits/>
- Dalland, O. (2017). *Metode og oppgaveskriving* (Vol. 6). Gyldendal akademisk.
- DiMaggio, P. J., & Powell, W. W. (1983). *The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields*. *American Sociological Review*, 48(2). <https://doi.org/10.2307/2095101>
- DNB. (n.d.). *Green loans for commercial property and residential projects*. Retrieved 15 March 2024 from <https://www.dnb.no/en/business/financing/business-loans/green-loans/commercial-property-and-residential-prosjects>
- EEA Agreement (1994). *Agreement on the European Economic Area*. EFTA  
<https://www.efta.int/sites/default/files/media/documents/legal-texts/eea/the-eea-agreement/Main%20Text%20of%20the%20Agreement/EEAagreement.pdf>
- Energimerkeforskriften for bygninger. (2009). *Forskrift om energimerking av bygninger og energivurdering av varme- og klimaanlegg (energimerkeforskriften for bygninger)*

(FOR-2009-12-18-1665). Lovdata. <https://lovdata.no/dokument/SF/forskrift/2009-12-18-1665>

Enova. (2019). *Forprosjekt ny energimerkeordning*. Enova SF.  
<https://www.regjeringen.no/contentassets/796d0c2e8ac349c896d984f786f2eef2/hovedrapport---forprosjekt-ny-energimerkeordning..pdf>

Envoria (2023). *Key Economic activities for Construction and Real Estate* [illustration]  
<https://envoria.com/insights-news/what-does-the-eu-taxonomy-mean-for-the-construction-and-real-estate-industry>

EØS-loven – EØSl. (1994) *Lov om gjennomføring i norsk rett av hoveddelen i avtale om Det europeiske økonomiske samarbeidsområde (EØS) m.v.* (LOV-1992-11-27-109)  
[Lovdata. https://lovdata.no/lov/1992-11-27-109](https://lovdata.no/lov/1992-11-27-109)

European Commission. (2023). *A USER GUIDE TO NAVIGATE THE EU TAXONOMY FOR SUSTAINABLE ACTIVITIES*. Publication Office of the European Union.  
<https://ec.europa.eu/sustainable-finance-taxonomy/assets/documents/Taxonomy%20User%20Guide.pdf>

European Commission (n.d-g) *How does the EU Taxonomy fit within the sustainable finance framework?* [illustration] [https://commission.europa.eu/system/files/2021-04/sustainable-finance-taxonomy-factsheet\\_en.pdf](https://commission.europa.eu/system/files/2021-04/sustainable-finance-taxonomy-factsheet_en.pdf)

European Commission. (n.d.-a). *EU Taxonomy Calculator - minimum safeguards*. Retrieved 17 April from <https://ec.EUropa.EU/sustainable-finance-taxonomy/wizard>

European Commission. (n.d-b). *EU Taxonomy for sustainable activities*. European Commission. Retrieved 15 April 2024 from [https://finance.ec.EUropa.EU/sustainable-finance/tools-and-standards/EU-taxonomy-sustainable-activities\\_en](https://finance.ec.EUropa.EU/sustainable-finance/tools-and-standards/EU-taxonomy-sustainable-activities_en)

European Commission. (n.d-c). *EU Taxonomy Navigator*. Retrieved 12 March 2024 from <https://ec.EUropa.EU/sustainable-finance-taxonomy/home>

- European Commission. (n.d.-d). *EU Taxonomy Navigator: Renovation of existing buildings*. Retrieved 2 April 2024 from <https://ec.EUropa.EU/sustainable-finance-taxonomy/activities/activity/351/view>
- European Commission. (2020). *Renovation Wave - The European Green Deal*. [Brochure] [http://ec.EUropa.EU/commission/presscorner/detail/en/FS\\_20\\_1844](http://ec.EUropa.EU/commission/presscorner/detail/en/FS_20_1844)
- European Commission (n.d- e) *Six environmental objectives following the European Green Deal* [illustration]. <https://ec.europa.eu/sustainable-finance-taxonomy/>
- European Commission (n.d-f) *The four steps of EU Taxonomy compliance* [illustration]. <https://ec.europa.eu/sustainable-finance-taxonomy/>
- European Commission (n.d-h) *The six sustainability objectives*[illustration]. <https://ec.europa.eu/sustainable-finance-taxonomy/>
- European Parliament. (2024). *Stopping greenwashing: how the EU regulates green claims*. Retrieved 10 March 2024 from <https://www.EUroparl.EUropa.EU/topics/en/article/20240111STO16722/stopping-greenwashing-how-the-EU-regulates-green-claims>
- Forskrift til lov om statlig garantiordning for lån til små og mellomstore bedrifter (2020) (FOR-2021-12-17-3645). Lovdata. <https://lovdata.no/forskrift/2020-03-27-490>
- Grenness, T. (2012). *Hvordan kan du vite om noe er sant?* (2 ed.). Cappelen Damm.
- Grønn Byggallianse. (n.d.-c). *BREEAM In-Use vs. BREEAM-NOR*. Grønn Byggallianse,. Retrieved 19 March 2024 from <https://byggalliansen.no/sertifisering/om-BREEAM-in-use/BREEAM-in-use-vs-BREEAM-nor/#1686902894768-842ba0b9-65b7>
- Grønn Byggallianse. (n.d.-d). *EUs taksonomi – nye rammebetingelser for bærekraft*. Retrieved 14 April from <https://byggalliansen.no/kunnskapssenter/nye-rammebetingelser-for-baerekraft-i-bygg-og-eiendom/#1606741398075-0360e03c-56f7>

- Grønn Byggallianse. (2011). *Fra C til A* (Report 01/11). Grønn Byggallianse.  
<https://byggalliansen.no/wp-content/uploads/2018/11/Ca-til-A-en-veileder-for-byggherrer-med-energiambisjoner.pdf>
- Grønn Byggallianse. (2024). *Miljørapportering for eiendomssektoren*. Grønn Byggallianse.  
[https://byggalliansen.no/wp-content/uploads/2024/01/Miljorapportering\\_Endelig-versjon.pdf](https://byggalliansen.no/wp-content/uploads/2024/01/Miljorapportering_Endelig-versjon.pdf)
- Grønn Byggallianse. (n.d.-b). *Nysgjerrig på BREEAM-NOR?* Grønn Byggallianse. Retrieved 19 March from <https://byggalliansen.no/sertifisering/om-BREEAM/nysgjerrig-pa-BREEAM-nor/>
- Grønn Byggallianse. (n.d.-a). *Ofte stilte spørsmål om BREEAM-NOR*. Grønn Byggallianse. Retrieved 19 March from <https://byggalliansen.no/sertifisering/om-BREEAM/manual-og-verktoy-og-hjelp/BREEAM-nor-faq/>
- Halvorsen, K. (2008). *Å forske på samfunnet* (Vol. 5). Cappelen Damm AS.
- Herud, A. D., & Bye, M. (2021). *Grønn premium i et todelt kontormarked* [Masteroppgave, Norges Handelshøyskole]. NHH Brage. Bergen. <https://openaccess.nhh.no/nhh-xmlui/handle/11250/2770244>
- International WELL Building Institute. *WELL v2*. International WELL Building Institute pbc. Retrieved 14 April 2024 from <https://v2.wellcertified.com/en/wellv2/overview>
- Jakobsen, I. U., Kallbekken, S., Lahn, B. (2015, January 4, 2024). *Parisavtalen*. Store Norske Leksikon. Retrieved 1 April 2024 from <https://snl.no/Parisavtalen>
- Kenton, W. (2023). *Grandfather Clause: History and Types of Legacy Clauses*. Investopedia. Retrieved 15 March 2024 from <https://www.investopedia.com/terms/g/grandfatherclause.asp>

Lov om offentliggjøring av bærekraftsinformasjon i finanssektoren mv. (2021). *Lov om offentliggjøring av bærekraftsinformasjon i finanssektoren og et rammeverk for bærekraftige investeringer* (LOV-2021-12-22-161). Lovdata.

<https://lovdata.no/dokument/NL/lov/2021-12-22-161>

Forskrift til lov om offentliggjøring av bærekraftsinformasjon i finanssektoren og et rammeverk for bærekraftige investeringer (2023) (FOR-2022-12-20-2354). Lovdata.

<https://lovdata.no/dokument/SF/forskrift/2022-12-20-2354>

Meld St. 12 (2021-2022). *Finansmarkedsmeldingen 2022*. Det Kongelige Finansdepartementet.

<https://www.regjeringen.no/contentassets/0142ad0157fc48a5a6283c9945feb82a/no/pdfs/stm202120220012000dddpdfs.pdf>

Miljødirektoratet. (n.d., 24.06.2021). *Om Europas grønne giv*. Retrieved 4 April 2024 from

<https://www.miljodirektoratet.no/ansvarsomrader/internasjonalt/gronn-giv/EUropas-gronne-giv/>

Ministry of Finance. (2024, 15.01.2024). *Taksonomien for bærekraftig økonomisk aktivitet. Government*. Retrieved 15 April 2024 from

<https://www.regjeringen.no/no/tema/okonomi-og-budsjett/finansmarkedene/taksonomien-for-barekraftig-okonomisk-aktivitet/id2924859/>

NHO. (n.d). *EUs taksonomi og handlingsplan for bærekraftig finans*. Retrieved 10 April 2024, from <https://www.nho.no/tema/energi-miljo-og-klima/artikler/eus-taksonomi-og-handlingsplan-for-barekraftig-finans/>

North, D. (1990). *Institutions, Institutional Change and Economic Performance*. St. Louis: Cambridge University Press

NVE. (2015). *Energimerking av bygninger og energivurdering av varme- og klimaanlegg*. Retrieved 1 April 2024 from

<https://www.nve.no/energi/virkemidler/energimerking-av-bygninger-og-energivurdering-av-varme-og-klimaanlegg/>



- NVE. (n.d) *Energikarakteren* [illustration] <https://www.enova.no/energimerking/om-energimerkeordningen/om-energiattesten/tiltakslisten/energikarakteren/>
- Nyhus, Ø. N. (2024, 14 February). Åpner for strømdeling mellom næringseiendommer. *Estate Nyheter*. <https://www.estatenyheter.no/apner-for-stromdeling-mellom-naeringseiendommer/403549>
- Nærings- og fiskeridepartementet. (2022). Rapport fra ekspertutvalget for klimavennlige investeringer. Regjeringen. <https://www.regjeringen.no/no/dokumenter/rapport-fra-ekspertutvalget-for-klimavennlige-investeringer/id2921706/?ch=8>
- Regjeringen. (n.d., 15.01.2024). *Taksonomien for bærekraftig økonomisk aktivitet*. Regjeringen. Retrieved 3 March 2024 from <https://www.regjeringen.no/no/tema/okonomi-og-budsjett/finansmarkedene/taksonomien-for-barekraftig-okonomisk-aktivitet/id2924859/?expand=factbox2926760>
- Reeves, S., Albert, M., Kuper, A., & Hodges, B. D. (2008). *Why use theories in qualitative research?* *BMJ*, 337, a949. <https://doi.org/10.1136/bmj.a949>
- Science Based Targets. (n.d). *LEAD THE WAY TO A LOW-CARBON FUTURE*. Science Based Targets. Retrieved 9 May from <https://sciencebasedtargets.org/how-it-works>
- Science Based Targets. (2021). *Simplified illustration of how mitigation pathways are used to calculate SBTs ?* [illustration] <https://sciencebasedtargets.org/resources/files/Pathway-to-Net-Zero.pdf>
- United Nations. (n.d). *Sustainability*. United Nations. Retrieved 18 March 2024 from <https://www.un.org/en/academic-impact/sustainability>

## 8. Appendix

### Attachment 1. Interview guide for the property developers

Tema	Spørsmål	Mulige oppfølgingsspørsmål
1. Introduksjon	1. Introdusere masteroppgaven	Er det i orden at jeg tar opptak av samtalen?
2. Bakgrunn	1. Kan du/dere fortelle litt kort om deg selv og dine bakgrunn? hvordan du endte opp i Entra?	
2. Forståelse av kravene	1. Hvor godt kjent er du med kriteriene til bygg- og eiendomsnæringen i EUs taksonomi? 2. Hva er din fortolkning av EU-taksonomien for rehabiliteringsprosjekter? (Hva innebærer den) <ol style="list-style-type: none"> <li>I hvilken grad syntes du kravene er tydelige?</li> </ol> 3. Hva er generelt ditt inntrykk av vanskelighetsgraden på å oppnå bærekraft i henhold til kriteriene i taksonomien?	
3. Erfaringer	<p><u>Spesifikke prosjekt</u></p> 1. Kan du gi et eksempel på et spesifikt prosjekt dere har bistått på hvor EU-taksonomien er blitt implementert eller forsøkt? /evt andre strategier	<input type="checkbox"/> Hva var årsaken til at prosjektet ble vellykket? <input type="checkbox"/> I hvilken grad vil du si dere har teknologien til å gjennomføre kravene til EU- taksonomi i rehabilitering av bygg?  8. Opplever du en direkte link mellom energieffektivitet og leiepris?
	<p><u>Strategi</u></p> 2. Fra ditt perspektiv, hvilke strategier har fungert best for å implementere EU- taksonomien i rehabiliteringsprosjekter?	
	<p><u>Utfordringer</u></p> 3. Ser du noen spesifikke utfordringer med implementeringen av taksonomien i rehabiliteringsprosjekter, hvis det er noen, 4. Hvordan kan disse håndteres? <ol style="list-style-type: none"> <li>Har disse spesifikke utfordringer som har påvirket firmaets nåværende tilnærming?</li> </ol>	
	<p><u>Påvirkning</u></p> 5. Hvordan påvirker oppfyllelse av EU-taksonomien for bærekraftig renovering av eiendom økonomien i prosjektene? 6. Klarer dere å regne hjem energieffektiviseringen?  7. I hvilken grad opplever dere at oppfyllelse av EU-taksonomien påvirker eiendomsverdiene, leieinntekter og salgspotensialet for renoverte bygninger?	
4. Beslutningsrammeverk og retningslinjer	<p><u>Sertifiseringer</u></p> 1. I hvilken grad opplever dere at sertifiserings- og standardiseringsordninger (BRREAM feks) til hjelp for å lette implementeringen av EU-taksonomien i praksis?	Kan du forklare beslutningsrammeverket i firmaet for implementeringen av taksonomien?

	<p>2. Hvor viktig er oppfyllelse av EU-taksonomien i fremtidige prosjekter?</p> <p>3. Hvilke andre sertifiseringsordninger benytter dere dere av?  a. Hvordan bestemmer hvilke som benyttes?</p>	
<p><b>5. Konsekvenser av EU-taksonomi rammeverket</b></p>	<p><input type="checkbox"/> I hvilken grad opplever du at dere har teknologi tilgjengelig for å møte taksonomi kravene i prosjektene deres?</p> <p><input type="checkbox"/> I hvilken grad opplever du at innføringen av EU-taksonomien akselererer bærekraftsfokuset i prosjektene deres?</p> <p><input type="checkbox"/> I hvilken grad opplever dere at krav fra leietaker påvirker beslutningene om implementering av taksonomi og hly energiklasse i prosjektene?</p> <p><input type="checkbox"/> I hvilken grad opplever du at insentiv som grønne lån påvirker bærekraftssatsingen?</p> <p><i>Alternative løsninger</i></p> <p>1. I hvilken grad tror du EU-taksonomien vil lykkes i målet om et klimanøytralt Europa i 2050?</p> <p>2. Bør reglene være strengere/slakkere eller mer spesifikke?</p> <p>3. Er det andre sertifiseringsmetoder som ville vært mer hensiktsmessige?</p> <p>4. Dersom du ville lagt til kriterier/krav i taksonomien for å redusere klimagassutslipp, hva ville du fokusert på?</p>	
<p><b>6. Fremtidige optimalisering strategier av EU-taksonomien</b></p>	<p>1. Hvordan tror du taksonomien kommer til å påvirke næringen fremover?</p> <p>2. Har dere en strategi for å møte eventuelle strengere krav til energieffektivitet? Kan du fortelle litt om den?</p> <p>3. Har dere et spesifikt mål om energiklasse på tvers av porteføljen deres?</p>	
<p><b>7. Tilleggsinformasjon</b></p>	<p>1. Andre tanker/innspill du vil legge til? Eller til hva jeg burde undersøke ytterligere/ noen jeg bør kontakte?</p>	
<p><b>8. Avslutning</b></p>	<p>2. Takke for deres tid og innsikt. Spørre om jeg kan ta kontakt ved nye spørsmål.</p> <p>3. Gi beskjed om samtykkekontrakt</p>	

## Attachment 2. Interview guide for the Interest Organizations

Tema	Spørsmål	Mulige oppfølgingsspørsmål
<b>1. Introduksjon</b>	1. Introdukere masteroppgaven	
<b>2. Bakgrunn</b>	1. Kan dere fortelle litt kort om deg selv og dine bakgrunn?	
<b>2. Forståelse av kravene</b>	1. Hvor godt kjent er du med kriteriene til bygg- og eiendomsnæringen i EUs taksonomi? 2. Hvordan forstår du/dere EU-taksonomien for rehabiliteringsprosjekter? (Hva innebærer den) <ol style="list-style-type: none"> <li>I hvilken grad syntes du kravene er tydelige?</li> </ol> 3. Hva er generelt ditt inntrykk av vanskelighetsgraden på å oppnå bærekraft i henhold til kriteriene i taksonomien?	
<b>3. Erfaringer</b>	<p><u>Spesifikke prosjekt</u></p> 1. Kan du gi et eksempel på et spesifikt prosjekt dere har bistått på hvor EU-taksonomien er blitt implementert eller forsøkt? /evt andre strategier	<input type="checkbox"/> Hva var årsaken til at prosjektet ble vellykket? <input type="checkbox"/> I hvilken grad vil du si bedrift har teknologien til å gjennomføre kravene til EU- taksonomi i rehabilitering av bygg?  8. Opplever dere en direkte link mellom energieffektivitet og leiepris?
	<p><u>Strategi</u></p> 2. Fra ditt perspektiv, hvilke strategier har fungert best for å implementere EU- taksonomien i rehabiliteringsprosjekter?	
	<p><u>Utfordringer</u></p> 3. Ser du noen spesifikke utfordringer med implementeringen av taksonomien i rehab prosjekter, hvis det er noen, 4. Hvordan kan disse håndteres? <ol style="list-style-type: none"> <li>Har disse spesifikke utfordringer som har påvirket firmaets nåværende tilnærming?</li> </ol>	
	<p><u>Påvirkning</u></p> 5. Hvordan påvirker oppfyllelse av EU-taksonomien for bærekraftig renovering av eiendom økonomien i prosjektene dere bistår på? 6. Klarer dere å regne hjem energieffektiviseringen?  7. ? I hvilken grad opplever dere at oppfyllelse av EU-taksonomien påvirker eiendomsverdiene, leieinntekter og salgspotensialet for renoverte bygninger?	
<b>4. Beslutningsrammeverk og retningslinjer</b>	<p><u>Sertifiseringer</u></p> 1. I hvilken grad opplever dere at sertifiserings- og standarder (Breeam feks) til hjelp for å lette implementeringen av EU-taksonomien i praksis?  2. Hvilke andre sertifiseringsordninger benytter dere dere av?	

	a. Hvordan bestemmer hvilke som benyttes?	
<b>5. Konsekvenser av EU-taksonomi rammeverket</b>	<input type="checkbox"/> I hvilken grad opplever du at dere har teknologi tilgjengelig for å møte taksonomi kravene i prosjektene deres? <input type="checkbox"/> I hvilken grad opplever du at EU-taksonomien aksellererer bærekraftsfokuset i prosjektene deres, eller øker etterspørselen? <input type="checkbox"/> I hvilken grad opplever dere at krav fra leietaker påvirker bærekraftssatsningen i prosjektene? <input type="checkbox"/> I hvilken grad opplever du at samarbeidspartenerne / kundene motiveres av muligheten for grønne lån?  <u>Alternative løsninger</u> 1. I hvilken grad tror du EU-taksonomien vil lykkes i målet om et klimanøytralt Europa i 2050? 2. Bør reglene være strengere/slakkere eller mer spesifikke? 3. Er det andre sertifiseringsmetoder som ville vært mer hensiktsmessige? 4. Dersom du ville lagt til kriterier/krav i taksonomien for å redusere klimagassutslipp, hva ville du fokusert på?	
<b>6. Fremtidige optimaliseringstrategier av EU-taksonomien</b>	1. Hvordan tror du taksonomien kommer til å påvirke næringen fremover? 2. Har dere en strategi for å møte eventuelle strengere krav til energieffektivitet? Kan du fortelle litt om den? 3. Har dere et spesifikt mål om energiklasse på tvers av porteføljen deres?	
<b>7. Tilleggsinformasjon</b>	1. Andre tanker/innspill du vil legge til? Eller til hva jeg burde undersøke ytterligere?	
<b>8. Avslutning</b>	2. Takke intervjuobjektet for deres tid og innsikt. Spørre om jeg kan ta kontakt ved nye spørsmål.	

### Attachment 3. Interview guide for the Financial Advisors

Tema	Spørsmål
<b>Tolkning av taksonomien</b>	<ol style="list-style-type: none"> <li>1. Hvor henter dere informasjon om EU-taksonomien?</li> <li>2. Hvordan kontrolleres det at kundene har forstått kriteriene riktig, og oppfylt dem?</li> </ol>
<b>Krav til grønne lån</b>	<ol style="list-style-type: none"> <li>3. Er oppnåelse av taksonomien et absoluttkrav for grønne lån?</li> <li>4. Hvordan valideres eiendomsutviklernes oppnåelse av EU taksonomikravene i rehab prosjekter?</li> <li>5. Gis det <i>mer</i> støtte jo mer bærekraftighet bygget oppnår?</li> <li>6. Enkelte rehab prosjekter vil ikke tillatte 30% forbedret energiklasse (pga vern, eller måten bygget er bygget) - vil dere i disse tilfellene kunne se bort ifra kravene, eller er de ufravikelige?</li> <li>7. Er det en grense for hvilke utgifter jeg kan skrive av på det grønne lånet innen rehab? Så lenge jeg oppfyller kravet om energiklasse A eller B, eller taksonomikravet, kan jeg også skrive av 1000 kvm splitter ny parkett - selv om bygget ikke <i>trenger</i> det?</li> <li>8. Det er vanlig at kjøpslån refinansieres for å få råd til oppussing. Dersom bygget kjøpes og rehabiliteres samme år, krever banken at taksonomikravene oppfylles for begge for å være innenfor? Eller øremerkes kronene?</li> </ol>
<b>Bankens risikovurdering</b>	<ol style="list-style-type: none"> <li>9. Kan du si noe om hvordan banken vurderer risiko (1) i rehabiliteringsprosjekt dere gir ut lån til, særlig med tanke på mulige innstramninger i form av direktiver fra EU?</li> <li>10. Kan du si noe om hvordan banken vurderer risiko (2) med tanke på attraktivitet av et bygg som oppfyller taksonomikriteriene og et som ikke gjør det? Si begge er kontorbygg med attraktiv beliggenhet i CBD?</li> <li>11. Det er en oppfatning blant flere eiendomsutviklere om at om noen år vil du ikke få lån i det hele tatt om investeringen ikke er bærekraftig - hvem sier det, og vet du noen om hvilke hold det er i denne påstanden? Tror du det vil bli realiteten?</li> <li>12. I Nederland har kontorbygg under C blitt forbudt å leie ut. Hva tror du om utviklingen i Norge, og har dere en strategi for å unngå at de låner ut til bygg som ikke vil oppfylle kravene i fremtiden?</li> </ol>

## Attachment 4. Interview guide for legal advisor

Tema	Spørsmål
<b>1. Juridisk tolkning</b>	<ul style="list-style-type: none"><li>a. Hvordan forstår du kravene i EU-taksonomi for rehabilitering?</li><li>b. I hvilken grad er kriterierene fastsatt i EU-taksonomien klare i sin formulering av hva som kreves i renoveringsprosjekter? Hva bør eventuelt spesifiseres?</li><li>c. Hvilke svakheter ser du i taksonomien, med tanke på implementering?</li></ul>
<b>2. Virkning i praksis</b>	<ul style="list-style-type: none"><li>a. Hvem bestemmer om man har oppfylt kravene? Hvordan kontrolleres dette?</li><li>b. Er oppfyllelse av BREEAM NOR-excellent tilstrekkelig for å oppnå kraven? Hvilke andre sertifiseringer fungerer eventuelt bedre?</li><li>c. Hvilke konsekvenser ser du av eiendomsaktører som velger å ikke følge EU-taksonomien?</li><li>d. Hvilken betydning har muligheten for grønn finansiering?</li></ul>
<b>3. Fremtidig utvikling</b>	<ul style="list-style-type: none"><li>a. Hvordan tror du taksonomien vil utvikle seg?</li><li>b. Har du noen tanker om hvordan næringsseiendomsaktører som driver rehabilitering bør forholde seg til taksonomien fremover, ettersom det er varslet at den vil være i stadig endring?</li></ul>

## Attachment 5. Sikt contract with information about the project

# Samtykkekontrakt for deltakelse i forskningsprosjektet:

Masteroppgave om implementeringen av EU-taksonomien i rehabilitering av bygg

### Formålet med prosjektet

Formålet med prosjektet er å avdekke metoder for hensiktsmessig implementering av EU-taksonomien i rehabilitering / ombygging av bygg.

Dette er en masteroppgave som skrives som en del av masterprogrammet Eiendomsutvikling ved Norges miljø- og biovitenskapelige universitet (NMBU).

Du får denne samtykkekontrakten fordi du har sagt deg villig til å delta i et intervju til min masteroppgave. Utvalget som blir intervjuet består av en rekke fagfolk som jobber med bærekraft i eiendomsbransjen.

### Hvem er ansvarlig for forskningsprosjektet?

NMBU er ansvarlig for personopplysningene som behandles i prosjektet.

### Det er frivillig å delta

Det er frivillig å delta i prosjektet. Det vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta eller senere velger å trekke deg.

### Din deltakelse i forskningsprosessen vil innebære følgende:

- Datainnsamlingsmetode:
  - Data vil bli innsamlet gjennom et intervju.
- Omfang:
  - Forskningen vil fokusere på din egen og din bedrifts innsikt og erfaringer knyttet til implementeringen av EU-taksonomien i rehabilitering av bygg. Intervjuene vil være samtalebaserte.
- Personopplysninger som samles inn:
  - Jeg vil registrere navn og kontaktopplysninger for å kunne følge opp og koordinere intervjuene. I tillegg vil jeg samle inn bakgrunnsopplysninger relatert til din faglige rolle og erfaring. Jeg vil ikke samle inn sensitive kategorier av personopplysninger.
- Registrering av opplysninger:
  - Opplysningene vil bli registrert gjennom lydopptak under intervjuene. Disse opptakene vil være kodede, og all personlig identifiserbar informasjon, som navn og kontaktopplysninger, vil bli erstattet med en unik kode. Opptaket vil kun være tilgjengelig for meg, og slettes ved prosjektslutt.

### Kort om personvern

Vi vil bare bruke opplysningene om deg til formålene vi har fortalt om i dette skrevet. Vi behandler personopplysningene konfidensielt og i samsvar med personvernregelverket. Du kan lese mer om personvern [her](#).

### Utdypende om personvern – hvordan vi oppbevarer og bruker dine opplysninger

- Student vil ha tilgang til dine opplysninger.





**Norges miljø- og biovitenskapelige universitet**  
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