

Managing Social Impact in Real Estate

Towards an integrated social value definition, measurement and quantification in the built environment industry.

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1. Colophon

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3. Abstract

Today's world is faced with climate emergencies and social disruptions, which means that decreasing negative results and delivering positive impact to the planet and society is necessary to support our future. With a rising demand for strategies that go beyond traditional investing, and the world approaching a new age of sustainable economies, impact measurement frameworks are a key tool in accelerating the transition.

Measuring, reporting and managing social impact is crucial in order to grasp the implications of investments, but data is often fragmented, inconsistent, difficult to find and hard to quantify. In addition, the reporting landscape is becoming increasingly complex as a plethora of overlapping or competing frameworks, indicators and measurement methodologies are emerging.

Meanwhile, a sharp common approach as well as greater use of existing frameworks would be more valuable than proliferation of ever more new assessment tools.

This research will seek to understand how social value is defined and measured in the real estate industry. A particular focus will be placed on how integrating social value can strengthen an organisation's business model while delivering positive societal impact. The research will also propose ways to integrate social value in decision-making processes. In order to do so, two tools - a roadmap and checklist, both deeply rooted in theory and practice findings - will be established.

Key Words: Social Value, Social Impact, Built Environment, Real Estate, Impact Investing, ESG, Impact Measurement and Management

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4. Executive summary

Introduction

The built environment plays a critical role in human life – it provides homes, workplaces, health, jobs, education and leisure. While the industry has a significant economic role, it also has a mixed and sometimes negative impact on the environment and society. Construction and operation activities account for 39% of global energy-related CO₂ emissions (Global Alliance for Buildings and Construction, International Energy Agency and the United Nations Environment Programme, 2019). The industry is notorious for having an unconstrained focus on financial profit (ULI, 2020), which brings about negative social effects such as housing unaffordability.

Investors, business executives and leaders across the sector increasingly acknowledge the role they must play in re-connecting real estate investment and development to local and global priorities. A variety of commitments such as the Paris Agreement or the EU Green Deal are driving this, together with demand from the public to invest in the “right causes”. Achieving sustainable and inclusive financial returns on investment can be done by making informed decisions about how to deliver social value to have a meaningful and transformative impact. Surveys have found that investors and practitioners have a strong interest in developing a better understanding of what social value means, how it fits within their business model, how it can be measured, reported on and delivered (ULI, 2021). However, as of now no common understanding on social value definition or measurement exists

Aim of research

This research aims to analyze the social value practice and to deliver a shared understanding of how to manage social value. A particular focus will be put on developing conceptual thinking, as well as on how to standardize the process of defining, measuring and implementing social value into decision-making processes.

Problem statement

As a response to the increased interest of industry leaders towards social impact integration, a plethora of social value definition and measurement techniques and frameworks have emerged. Yet from this outburst of measurement initiatives,

naturally, some skepticism emerges (UKGBC, 2021). Can there be only one definition for social value? How do you translate social benefit into numbers? How are these figures being calculated? When using financial proxies, does it even make sense to put a Euro sign to the public benefit of high quality, sustainable development?

Professionals involved in funding social value need sharper common frameworks and definitions. Wide-spread use of shared frameworks and definitions would be more valuable than proliferation of ever more assessment tools (Mulgan, 2010).

To summarize, social value in the context of real estate cannot be measured accurately for two reasons: firstly, there is no clear definition for social value, and secondly, there is no consensus on a method for measuring social value (UKGBC, 2022).

In theory, addressing each of the two underlying causes should provide an answer to the research question.



Fig. 1. Research problem

Research question

Considering the lack of common understanding of social value measurement, the main research question is as follows:

How can social value measurement in the built environment industry be strengthened?

By answering this question, the research aims to develop the first steps for an industry-wide measurement approach.

In order to answer the main research question, the following two sub-questions should first be answered:

SQ1: What fundamental aspects of the definition of social value are common across investors and providers?

One of the two main obstacles for measuring social value is the fact that the definition of social value is unclear. By answering this question, the research aims to arrive at a common approach for defining social value

SQ2: What key components of social value frameworks used by investors and providers can be set as standards for social value measurement in the industry?

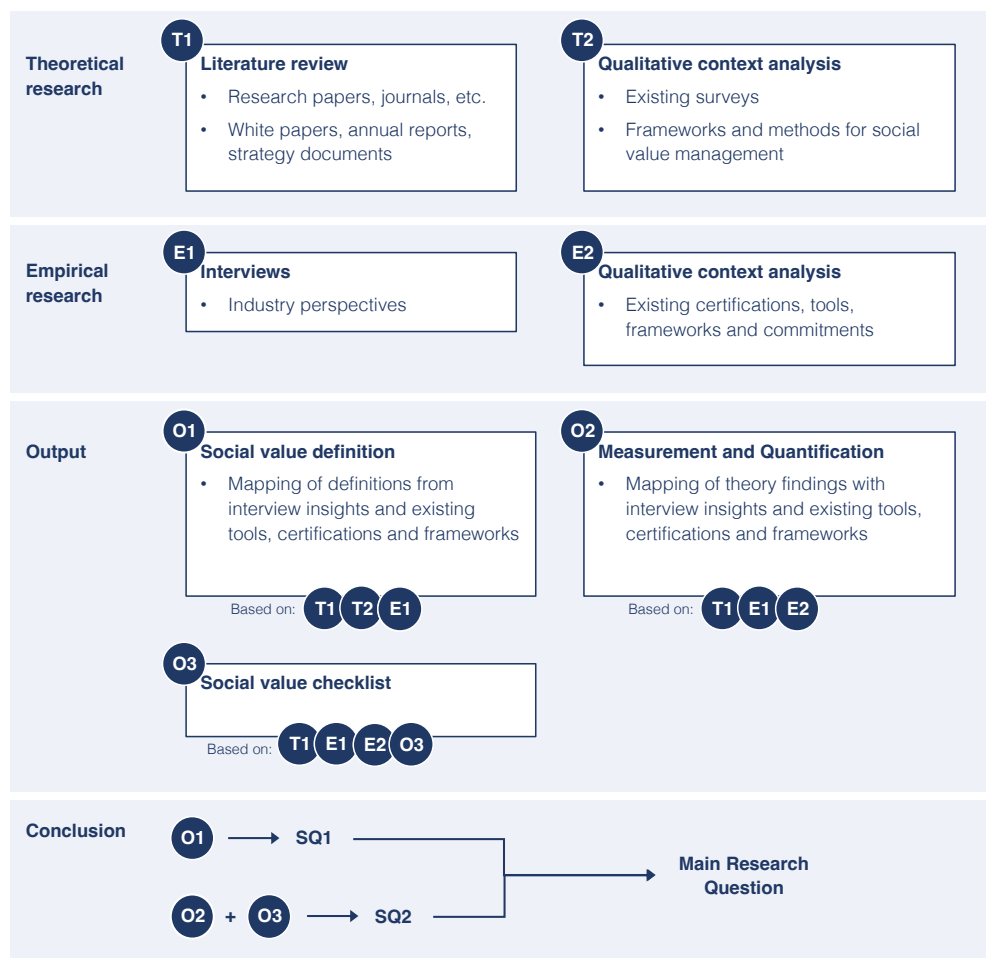
The other main obstacle for measuring social value is that there is no commonly adopted methodology on performing the measurement. By answering this question, the research aims to develop a checklist meant to streamline and align the measurement process across the industry.

Research methodology

This research builds upon a theoretical part (explorative literature review in order to collect important definitions and concepts and help guide the focus of the research) and empirical part (interviews with industry leaders and a qualitative context analysis in the form of a mapping exercise where existing frameworks are analyzed). The outputs from the theoretical and empirical parts are practical tools that not only answer the research questions but can also be readily used by industry professionals.

Figure 2 provides a more detailed overview of the components of the research methodology.

Fig. 2. Research approach.



Practical usefulness and relevance

The particular focus of this research is to develop practical tools that can help with the integration of social value considerations into economic and financial models and decision-making tools. More specifically, the report has four objectives:

- Provide an overview of the role the built environment has to play in creating social value, including opportunities to be addressed;
- Provide knowledge on the dimensions of social value and how those can be achieved through strategy and operations;
- Present findings from industry leaders on current perceptions, challenges and emerging practices;
- Map collected knowledge from the theoretical and empirical research with existing tools and frameworks;
- Develop a 'checklist' with comprehensive social impact themes and measurement methods to enable a streamlining and alignment of the measurement process across the industry

Too often, social sustainability and financial management methodologies have been perceived and handled as two distinct issues. In this report, it is argued that integrated measurement frameworks shift the focus on creating both financial returns and contributing to social value. The transition to a sustainable future need to serve and benefit the many – leaving no one behind.

Theoretical research

The built environment industry has a central role in delivering social value through its links to a number of the UN's Sustainable Development Goals (SDGs). As people spent 90% of their time indoors, and virtually all of their time in the built environment, the industry shapes how and where people live, work and play.

However, the industry is also known to create negative impacts on society and the environment, and it also amplifies inequalities .

The real estate sector, which is fragmented and opaque, is responsible for driving wealth inequalities through its prioritization of profit and the financialization of assets. However, integrating social value in the strategic intentions of companies, both public and private, reveals an opportunity to address this challenge through the provision of affordable housing. Affordability is one of the pillars of social value.

An increased interest in social value is observed in the industry, for example through sustainable/impact investing products. This interest is driven by increased regulation, investor pressure and societal trends.

The business case for social value integration is here. Social value is becoming a competitive advantage by, for example, playing a role in investment opportunities for private companies. Social value's long-term horizon, however, poses a challenge to the typical short-term financial profit mindset.

The theoretical research also shows evidence of expert knowledge on how social value can be created – from supporting communities, through the provision of affordable housing, to indoor climate's impact on health and well-being. Information is also available on topics such as measurement and financial quantification methodologies.

With all these developments in the social value practice in the background, the built environment industry has as of now not reached a consensus on how social value should be integrated and managed.

Theory shows there's a myriad of frameworks and tools emerging that aim to tackle this challenge, however many organizations are nonetheless 'reinventing the wheel' by developing custom-made definitions and measurement approaches.

Industry perspectives

The stakeholder interviews revealed a number of points that need to be addressed to improve and progress social value creation.

There's a need for more external pressure. Both investment professionals and asset managers or developers talked about the enhanced need for stricter regulations and a unionized push to integrate social value in the built environment industry as a whole, and especially in the residential sector. This pressure, according to interviewees, should come from governments, authorities, but also private and public providers of capital.

A standardized approach and industry alignment could be helpful. The need for a standardized definition and process when it comes to social value was highlighted by most interviewees, most notably by the investment professionals. Their perspective is highly influenced by reporting and auditing considerations. Standardization can be helpful, but it is important to do that without hindering the opportunity for flexibility and context-based considerations for different projects.

Along with the need for standardization, a call for industry-wide alignment was made. Meaningful reporting, not box ticking. All interviewees spoke about the dangers of turning reporting into a "box-ticking" exercise. Reporting oftentimes incentivises investors to mostly focus on simplified, easily measurable metrics that

rarely tell the full story and may even promote an inaccurate one. Interviewees suggested the focus should be on outcomes instead of outputs.

Only do quantification and monetization if it makes sense. All interviewees spoke about the positive aspects of quantifying social value. Many of them, however, warned about the dangers of focusing too much on monetisation and only selecting quantifiable performance indicators or getting tangled in overcomplicated calculations. Calculating financial value should be done only when there are true cost savings or monetary improvements.

A major takeaway is that, while many companies are motivated to contribute to social value creation, a myriad of challenges exists that obstruct putting intentions into place. Consequently, this blocks the way forward for social value to become a central consideration for the industry at large.

Although there is a general knowledge of and genuine interest to create social value, gaps exist within the social value creation process. Below, a schematic representation shows the social value creation chain, highlighting the weak points that were identified in the empirical research.



Fig. 3. Gaps

Examining the landscape of existing frameworks can be useful in helping navigate these two parts of the process where unknowns still exist. To address the "Initiation" gap in the social value creation process, a number of frameworks and tools are analyzed for clues on how to approach this step of the process will be presented. This is verified with highlights from the theoretical research.

To address the "Measurement" gap in the process, all selected frameworks, tools, certifications, etc. are mapped against a set of criteria derived from the theoretical research. The result of the mapping exercise is a checklist with key KPIs and ways to measure them. This checklist can aid organisations in approaching the "Measurement" gap of the social value creation process.

Output

Combining data from the theoretical and empirical parts results in two main outputs: a social value definition mapping (roadmap for defining social value) and a social value 'checklist' for standardizing the measurement process. These three outputs

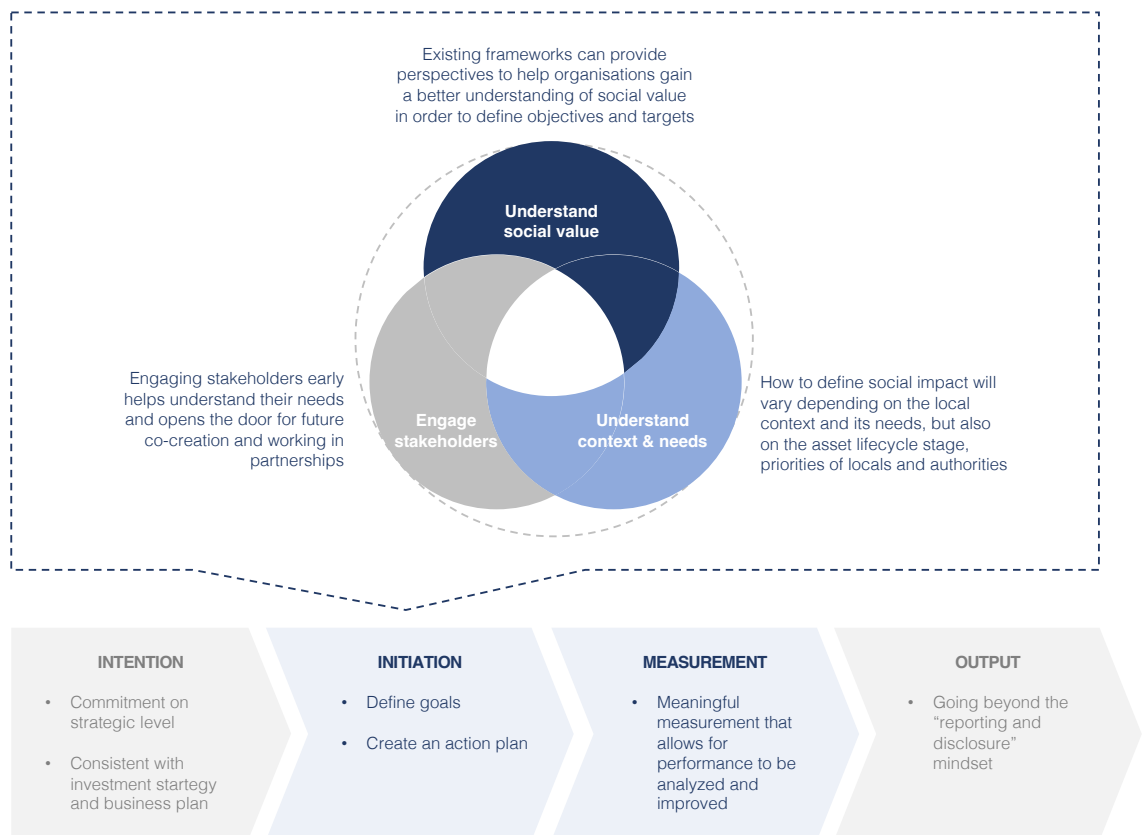
not only directly form the answers to the two research sub-questions but are also practical tools that can readily be used by industry practitioners.

1) Social Value Definition Roadmap (Addressing the “Initiation” gap)

As mentioned, defining objectives is one of the most crucial elements in social value creation. It is imperative that social goals and objectives are clearly defined and align the company’s plans and aspirations (e.g., financial return) with the values of stakeholders. The following few sections present a roadmap for defining social value:

- Understand social value
- Understand local context and needs
- Engage with stakeholders

Fig. 4. Social Value Definition Roadmap



2) Social Value Checklist (Addressing the “Measurement” gap)

The Social Value Checklist (summarized version in figure 5) is a MVP (minimal viable product) guideline that covers all key areas that the research has brought about. The checklist has been created to raise considerations and discussions around ways in which social value can be integrated in and created as a result of a real estate development or investment. It should be used as inspiration and support when selecting targets and ways to measure. The checklist can be used throughout the entire planning, design, construction and delivery phases, and should

engage as many relevant stakeholders as possible in the dialogue. It is critical to start using the checklist as early as possible in the process, preferably pre-planning phase.

Fig. 5. Social Value Checklist

Physical		Accessibility and mobility	Will your project be equally accessible to all people of different abilities?
		Adaptability	Will your project's design be flexible, and will it create potential for conversion, thus reducing lifecycle costs and minimising the risk of vacancy?
		Environmental sustainability	Will your project promote protection of ecosystems, energy efficiency, innovative building practices, waste and pollution minimisation, etc?
		Health and well-being	Will your project improve physical health, safety and mental well-being for everyone involved, including users, local community, project team, supply chain, etc?
	☆☆	Quality of spaces	Will your project bring spaces and routes that are designed well, and will they be attractive, safe, uncluttered and work effectively for all in society?
		Nutrition	Will your project promote health improvement by influencing dietary behaviours and by increasing the marketing and availability of healthy foods?
Mental		Affordable housing	Will your project provide or preserve housing units that are considered affordable in the local context?
		Behavioural change	Will your project aim to promote solutions that encourage people to make the most sustainable choice?
		Character	Will your project respond to and reinforce locally distinctive patterns of development and culture, including preserving historical buildings and monuments
		Community	Will your project commit to strengthen communities and engage with them throughout the project lifecycle?
		Inclusivity, diversity and equality	Will your project aim to be inclusive, both in the project team and end users, as well as all other stakeholders involved?
		Jobs and education	Will your project support local job creation, education, training and/or businesses and products?
		Participation	Will you project allow for activities that promote active participation and involvement of users and stakeholders in decision making processes throughout the project lifecycle?
		Resilience	Will your project promote practices that mitigate risks, endure shocks and identify opportunities to adapt and thrive?
		Safety	Will your project aim to be inclusive, both in the project team and end users, as well as all other stakeholders involved?
		Work-life balance	Will your project ensure relevant stakeholders can find balance between the demands f work and those of personal fulfilment and happier life?
Additional		Guidance on monetization	Cost-Benefit Analysis
			SROI
		Tools for success	Do you have a feedback loop or another mechanism to stay engaged?

Conclusion

The most critical step for a focus on social value creation is to have a common approach on how to define it and measure it. Different techniques and methods exist, covering both qualitative and quantitative perspectives. However, the

understanding and use of such tools is still in its early phase in the built environment industry – knowledge and skills need to be developed in order to achieve more consistent and meaningful results.

By answering the two research sub-questions and the main research question, this research aims to provide knowledge, specific action points and practical tools for integrating social value.

SQ1: What fundamental aspects of the definition of social value are common across investors, managers and developers?

This research concludes that no one-size-fits-all approach exists when it comes to defining social value. Context is everything. The definition of social value will depend on the context-specific considerations, the nature of the development/asset, as well as local needs and priorities. Different frameworks and tools have varying focus and detail but can be used as guidance. Defining social value should be done by combining several approaches: analyzing local context, considering expert knowledge (frameworks and tools), understanding local needs and engaging with stakeholders.

Organisations require the right kind of leadership and skills in order to effectively combine these approaches to define social value.

The output of this research in relation to this sub-question, namely the mapping of analysis and related recommendations, is a roadmap on defining social value. This roadmap accounts for the fundamental aspects of social value definition based on practical and theoretical perspectives.

SQ2: What key components of social value frameworks used by investors, managers and developers can be set as standards for social value measurement in the industry?

The mapping of existing frameworks, interview insights and theoretical findings revealed a number of impact themes, measurement methodologies, as well as KPI setting and quantification guidance. All of this is operationalized in the social value checklist, which can be used by practitioners as a roadmap on identifying, selecting, measuring, tracking and managing impact.

The hypothesis that translating often-ignored impacts into financial terms will put them into the spotlight has given rise of the quantification and monetization of social value. However, as costs are easier to assess than benefits, which are more qualitative, expressing social value in financial terms should be treated with caution. Just because there is a number does not mean that the evaluation is subjective, or that the calculations are infallible estimates. As mentioned in the interviews, financial quantification should only be done where relevant, and measurement should not be skewed by overcomplicated calculations that shift the focus from creating actual impact.

A key takeaway in relation to finding a balance between flexibility and standardization in measurement is that it was impossible to design a rigid set of one-size-fits-all and top-down indicators. No set of pre-specified indicators can

measure impact in all situations. Striving for standardisation of metrics and measurement risks obscuring the need for good sense and professional judgement. This is why this research, instead of focusing on designing a rigid set of KPIs, proposes a tool (social value checklist) intended to help organisations get a holistic overview of impact themes, measurements and quantification. The checklist contains components that can be set as standards across the industry but remains flexible in the way it allows for context-specific implications to be considered.

RQ: How can social value measurement in the built environment be strengthened?

Social value measurement can be strengthened by:

- Effective leadership that targets intentional value creation and that understands the role the built environment plays in this process;
- A good understanding of local context, challenges, needs, priorities and opportunities for improvement;
- A context-based definition of social value and clear goals that link to local needs and that can be transformed into actionable steps;
- A standardized overview of impact themes and corresponding measurement techniques that can be tailored to specific contexts and needs, if needed;
- A process for continuous evaluation and tracking of results and outcomes which will set up organisations for successful delivery of social value

The roadmap for defining social value together with the social value checklist that this research has produced are the first steps to approaching a standardized process for the industry.

Organisations should take a principle-based approach to integrate social value into strategy, operations, performance monitoring and reporting.

Improving the role the built environment has in social value creation requires all market actors, including both public and private players, to take action and embed social value components into decision-making and thus optimise value creation for the benefit of society as a whole.



Introduction

5.1 Background

Our society is facing a multitude of challenges: from geopolitical conflicts and rising inequality to climate change and a global pandemic, and investors are looking for ways to become part of the solution. Research has shown that investors are increasingly looking for tools that go beyond typical ESG (environmental, social and governance) strategies and responsible investing strategies (Nuveen, 2021).

5.2 The Trade-Off Myth

Historically, many investors have perceived a trade-off between acquiring financial returns and creating environmental and social benefits. Morgan Stanley's Institute for Sustainable Investing (2019) has conducted research on nearly 11,000 funds from 2004 to 2018, comparing their performance on total returns and measure of risk, and has found out that there's no financial trade-off in the returns of sustainable investment funds when compared to traditional funds. Additionally, sustainable funds demonstrate lower downside risk (Morgan Stanley, 2019).

5.3 Understanding social value in the built environment industry

The economic importance of the real estate industry is significantly higher than other sectors, contributing massively to the gross domestic product and creating millions of jobs. In 2018, the real estate sector contributed 10% to the European Union economy (Eurostat, 2018). Commercial real estate alone contributed \$427 billion to the EU economy in 2021, significantly more than either the automotive manufacturing or telecommunications industries (INREV, 2022). The commercial property sector also directly employs over 4 million people, and the real estate industry at large represents 65% of all capital investment in the EU (INREV, 2022).

Parallel to the economic importance of the sector is its mixed and sometimes negative impact on environment and society. Construction and operation activities account for 39% of global energy-related CO₂ emissions (Global Alliance for Buildings and Construction, International Energy Agency and the United Nations Environment Programme, 2019).

The industry is notorious for having an unconstrained focus on financial profit (ULI, 2020), which brings about negative social effects.

Social value is a term for the economic, environmental and social benefits that are experienced by people. To understand their worth, these benefits are often measured, and sometimes assigned a financial figure (UKGB, 2020). In the context of the built environment, social value is considered as the benefits that built places provide to their local communities, where the local community could include existing and future residents, local businesses or anyone who interacts with that place, now or in the future. Within this context, the way that places are planned, maintained, built and operated can create jobs and bolster economic growth, improve local health and wellbeing, and strengthen the community (UKGB, 2020).

UN Sustainable Development Goals and Real Estate

In 2015, a detailed roadmap of indicators and action points underpinning 17 goals was released by the United Nations. This was a breakthrough milestone for ensuring both developing and industrialized countries are together on the path to sustainable development.

The 17 Sustainable Development Goals (SDGs) lay the foundation of the ambitious 2030 plan to transform the world by securing, simultaneously, economic growth, environmental protection, and human well-being. These 17 goals include 169 targets and are aimed at tackling humanity's most complex challenges (United Nations General Assembly, 2015).

The built environment plays a critical role in human life – it provides homes, workplaces, health, education and leisure. At the same time, the industry is heavily reliant on resources and energy for construction, maintenance and operation. Taking this into consideration, it comes as no surprise that many of the 17 Sustainable Development Goals relate to the real estate sector. Clear links can be found with SDG 11: Sustainable cities and communities, but the real estate sector also contributes to SDG 3 (Health and well-being of individuals and families), SDG 12 (Responsible consumption and production), SDG 13 (Climate action), SDG 10 (Reducing inequalities), SDG 9 (Industry, innovation and infrastructure), SDG 1 (No poverty), SDG 5 (Gender equality) and SDG 10 (Reduced inequalities).

Sustainable construction



Affordable homes



Livable communities



Fig. 6. Sustainable Development Goals in the context of the real estate sector.

The rise of Environmental, Social, Governance (ESG)

Environmentally responsible and sustainable business practices, driven by climate change and reflecting a shift in paradigm of public concern, have come to play an important role in corporations' strategic and operational activities.

For investors, the definition of responsible investing can encompass a variety of social and ethical concerns that firms may have, in addition to environmental issues including mitigating the consequences of climate change (Cajias et al., 2014).

Environmental, social, and governance (ESG) criteria, as described by Investopedia, are a set of requirements for a business' operations that socially responsible investors use to evaluate possible investments, according to Investopedia. Environmental criteria take into account how a business manages the environment. The management of relationships with customers, suppliers, employees, and the communities in which it operates is examined under the social criteria. Leadership, executive compensation, audits, internal controls, and shareholder rights are all topics covered by governance.

Information about the planned cash flow distribution, fewer principal-agent costs, and a smaller risk premium for investors are all indicators of a strong ESG commitment (Cajias et al., 2014).

Directly speaking, the cost of capital may be decreased because socially conscious investors may be willing to accept a lesser return from enterprises that uphold ethical standards (Cajias et al., 2014). It is often asserted that

organizations with strong ESG commitments are more robust and operationally and financially reliable. Then, these potential beneficial effects of ESG operations are distributed through a variety of factors, including governance frameworks and reputational advantages, among others. 2014 (Cajias et al., 2014).

5.4 The role of real estate investors and investment capital spectrum

Investors, both private and institutional, are important actors in the real estate industry. Debt financing provided by lending institutions and banks is essentially the main source of finance for real estate (Urban Land Institute, 2020). There are two main types of investors – (private) equity investors, focusing on opportunistic and value-add strategies that renovate or repurpose existing stock or fund higher-risk new developments, and investors who specialize in buying and holding of low-risk investments that provide stable returns (Urban Land Institute, 2020).

A shift towards more responsible investment strategies is observed, led by some of the world's most influential real estate investors and investment managers, however as of now the focus is placed predominantly on environmental sustainability (Nuveen, 2021).

According to a report from impact investing campaign Make My Money Matter (2021), this shift is mainly powered by three key factors: regulatory pressure, emerging ESG reporting scene and client push. According to the report:

- Global and local commitments, policies and regulations, such as the Task Force on Climate-Related Financial Disclosures (TCFD) or the EU Taxonomy are advancing the focus on ESG integration within the real estate sector.
- Responding to this regulatory push, a variety of ESG integration and reporting products are emerging in the financial sector.
- Customers nowadays are much more aware of and paying closer attention to how companies impact the world. This push from the side of the end beneficiaries is evident in pension funds, where the public who save and invest demand a responsible approach to how their money is managed.

Figure 7 illustrates the spectrum of investment capital. Various investment strategies are represented based on the extent to which each of them intentionally integrates environmental and social impact. Companies are leaving behind the classic investing mindset and shifting towards more sustainable strategies (Nuveen, 2021).

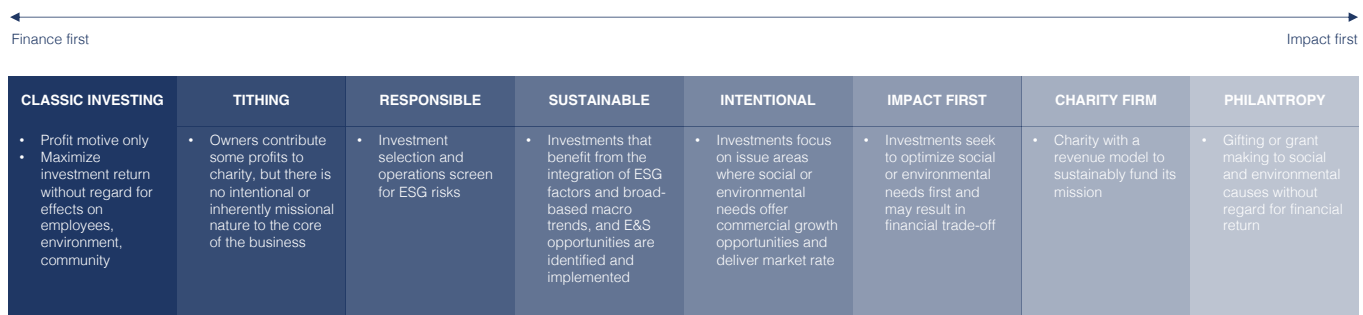


Fig. 7: Investment capital spectrum.

5.5 Challenges

While a growing interest in sustainability and its social dimensions can be observed, as of today a lot of elements in the built environment industry are still largely focused on traditional economic and financial return considerations – for example, project appraisal processes or investment decision making (Urban Land Institute, 2020). With this, social value considerations take the back seat. However, a handful of recent industry surveys (The Good Economy, 2020; PwC, 2020) highlight an emerging appetite from industry stakeholders, especially from investment professionals, for developing a clear understanding of what social value is and how it can be measured and managed. This appetite obviously comes in connection with the above-mentioned factors that drive the shift to a more sustainable investing.

Even with this growing interest, no common understanding of the definition, measurement and management of social value exists (Mudaliar and Basi, 2017). While the number of tools, frameworks and certification schemes is increasing, navigating this complicated and non-standardized landscape can be difficult. A lot of companies are even “reinventing the wheel” and developing their own bespoke frameworks and measurement tools (PwC, 2021).

5.6 Aim of this research

The overall goal of this report is to analyze the social value practice and to deliver a shared understanding of how to manage social value. A particular focus will be put on developing conceptual thinking, as well as common and aligned methods on how to define, measure and implement social value into decision-making processes.



Problem Statement



6.1 Concept model

The concept model for this research illustrates how gigantic societal and environmental challenges have set in motion a myriad of intergovernmental and local policies and commitments in an effort to look for a solution. The raised awareness and need for action means investors, especially institutional funds, face great pressure to deliver positive impact – both as a response to increased demand and in order to stay competitive.

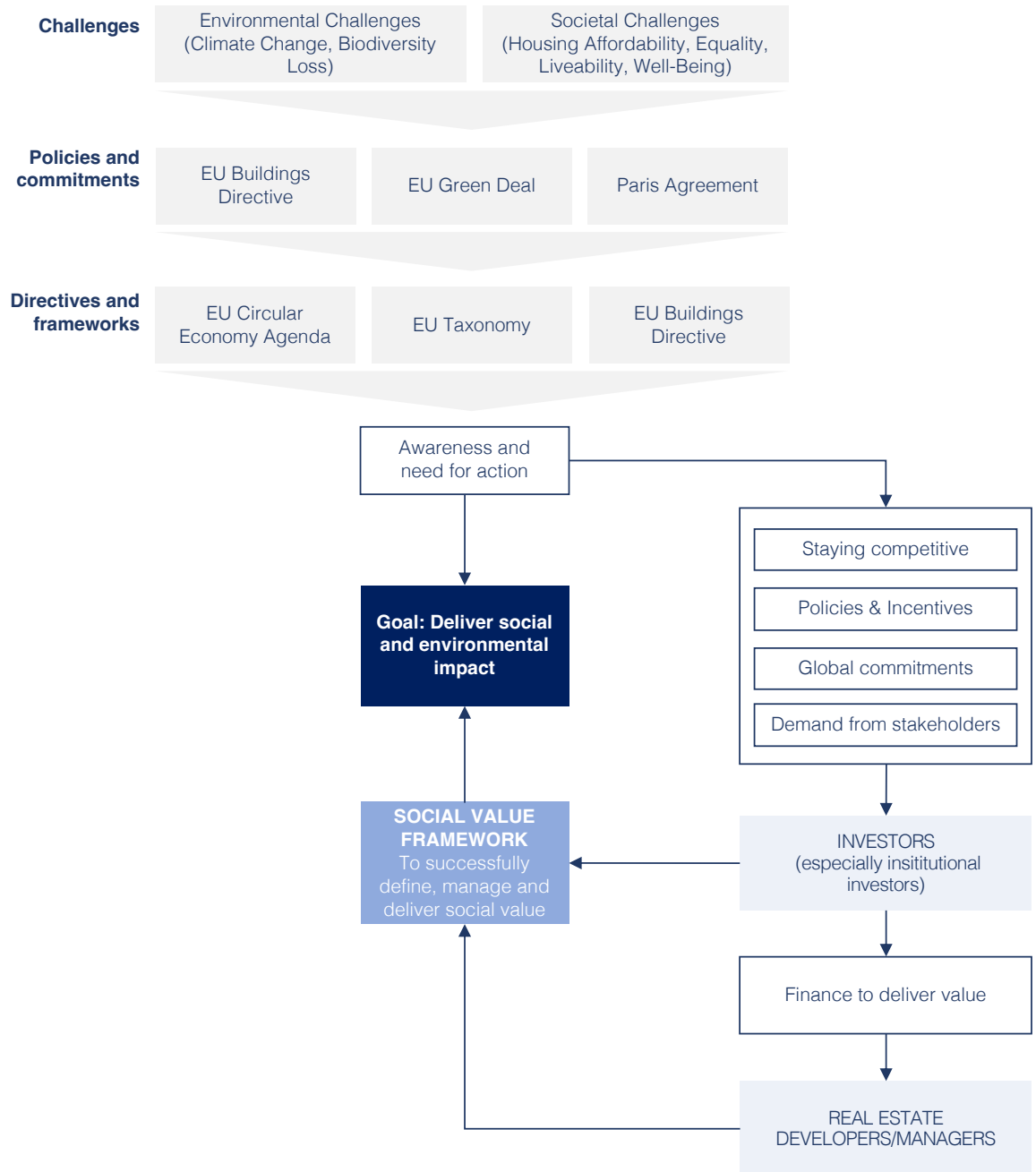


Fig. 8. The concept model of this research.

6.2 Problem statement

In theory, social impact measurement should be a powerful tool to improve the European social economy (Buckland & Hehenberger, 2021). It can assist individual organizations with funding access, setting realistic objectives, monitoring, learning from, and improving their activities. Social impact measurement helps groups working on related social issues or in nearby locations better understand the overall effects of their efforts and work together to effect more change (Buckland & Hehenberger, 2021). Additionally, at the European level, established standards, common metrics, and benchmarks can help decision-makers assess the social economy's influence on society, promote increased public funding for social economy organizations, and assist donors and investors in allocating funds to interventions with the greatest social impact.

With a greater focus on ESG criteria, more investors are starting to rethink their investment strategies (Elliott, 2021a). Greater impact-finance integration will benefit society as a whole more than individual investors or philanthropists could. Asset managers and owners, including those who desire market rates of financial return and those who are comfortable with less, can use embedded impact and financial data to deploy capital to address pressing social and environmental concerns while meeting their financial objectives. (Mulgan, 2010).

A plethora of social value measurement techniques and frameworks have correspondingly emerged in relation to this shift in investor preferences. Yet from this outburst of measurement initiatives, naturally, some skepticism emerges (UKGBC, 2021). How do you translate social benefit into numbers? How are these figures being calculated? When using financial proxies, does it even make sense to put a Euro sign to the public benefit of high quality, sustainable development?

A multi-pronged strategy is needed to tackle the problem. Valuation can involve a broader understanding of the impact of good urban design, and developers, promoters and designers can usefully inform the valuation process. There are ways valuations might be enhanced to reflect a wider range of attributes that are valued by households, businesses, and communities.

The lack of interoperability between financial and impact management approaches is another barrier. Sustainability departments within investment funds generally have their own teams, language, frameworks, and datasets, all of which exist in varying degrees of isolation from their financial

counterparts. These siloed methods fail to maximize impact, save money, or do both (Impact Frontiers Collaboration, 2020).

Integrating social impact with financial management enables investors to fully consider the financial, social, and environmental aspects of their investments, to maximize investment performance in those areas, and to communicate the performance of all those aspects of their investments in a clear and transparent manner (Impact Frontiers Collaboration, 2020).

Professionals involved in funding social value need sharper common frameworks. Wide-spread use of shared frameworks would be more valuable than proliferation of ever more assessment tools (Mulgan, 2010).

The above factors contribute to a general inability of the real estate industry to properly measure social value. This inability is driven by two underlying causes – firstly, there is no clear definition for social value, and secondly, there is no consensus on a method for measuring social value (UKGBC, 2022).

In theory, addressing each of the two underlying causes should provide an answer to the research question.

The research problem, underlying cause and hypothetical solution are summarized in figure 9.

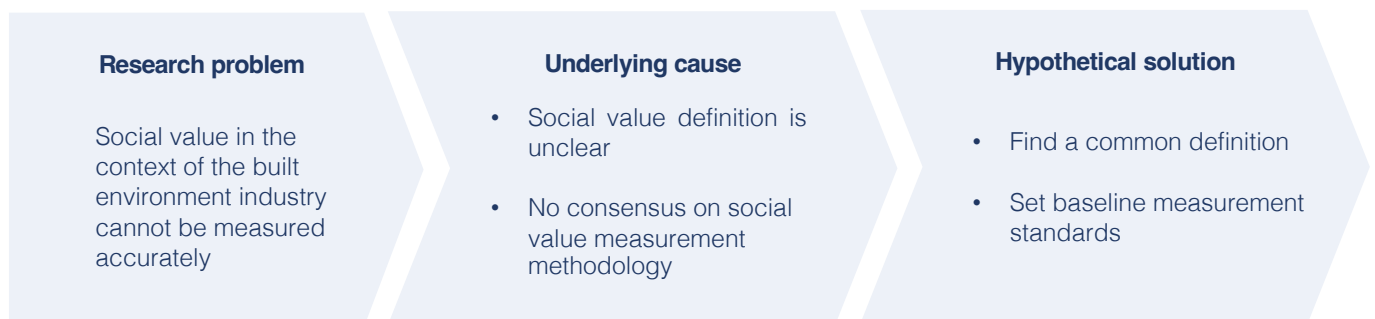


Fig. 9: Research problem, cause, and solution.

6.3 Research question

As already mentioned, there is no consensus on how to measure social value in the real estate industry. By demonstrating social value, developers and managers of projects can also benefit from long-term returns and improved reputation.

Considering the lack of common understanding of social value measurement, the main research questions are as follows:

How can social value measurement in the built environment industry be strengthened?

By answering this question, the research aims to develop the first steps for an industry-wide measurement approach.

In order to answer the main research question, the following two sub-questions should first be answered:

SQ1: What fundamental aspects of the definition of social value are common across investors and providers?

One of the two main obstacles for measuring social value is the fact that the definition of social value is unclear. By answering this question, the research aims to arrive at a common approach for defining social value

SQ2: What key components of social value frameworks used by investors and providers can be set as standards for social value measurement in the industry?

The other main obstacle for measuring social value is that there is no commonly adopted methodology on performing the measurement. By answering this question, the research aims to develop a checklist meant to streamline and align the measurement process across the industry.

Figure 10 provides a schematic description of the links between the research problem, the research question and the objectives of answering the questions.

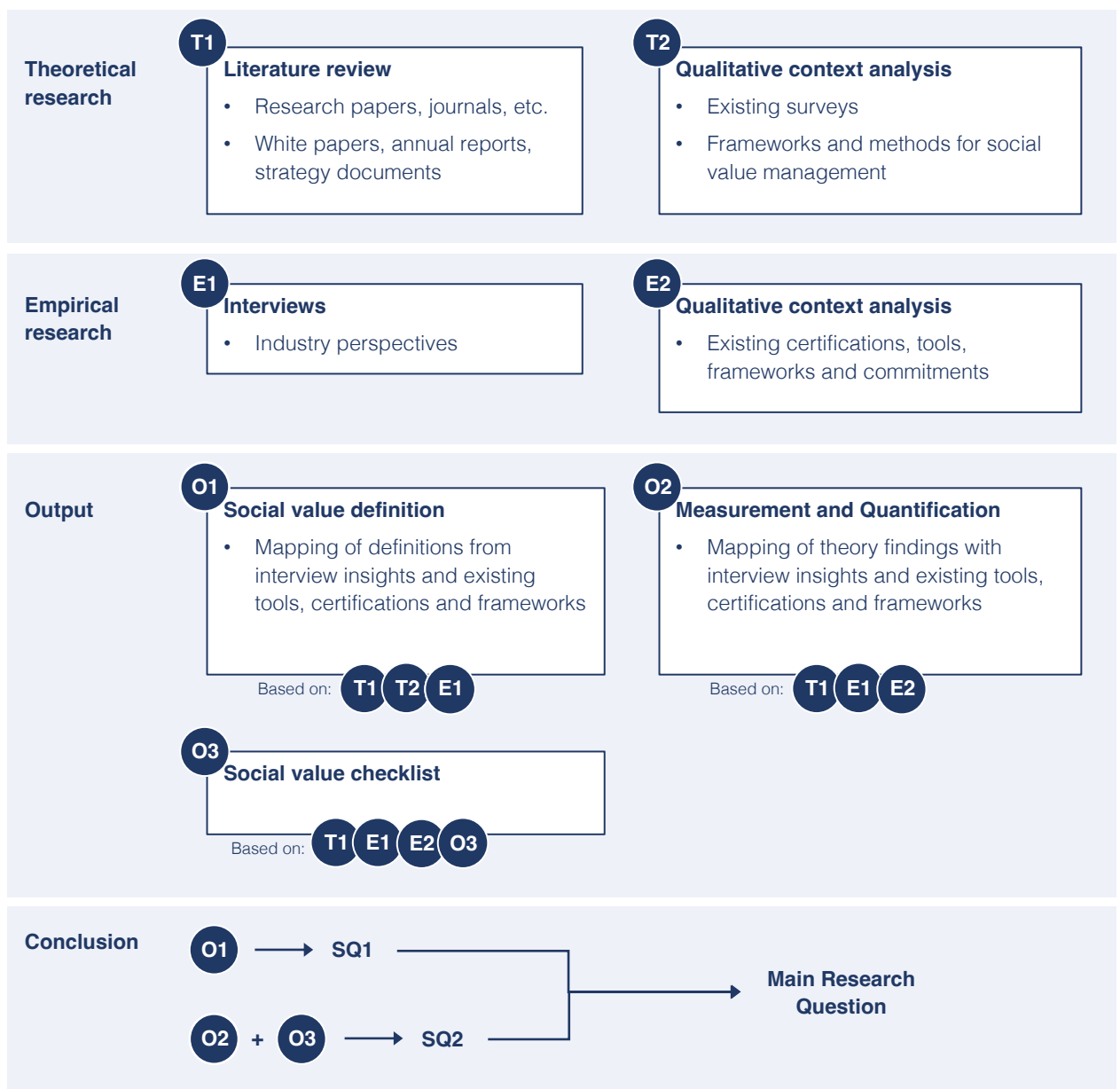


Fig. 10. Links between research problem, research questions and research objectives.

6.4 Research design, methodology and report structure

This research will seek to understand where the social value practice currently stands in the context of the built environment industry. It will also look at the business case for social value and how it can generate benefits for developers and investors, as well as propose ways to integrate new types of thinking in decision-making processes to make them more effective in allocating resources. Figure 11 shows a schematic representation of the research methodology and the structure of this report, and these are described in detail below.

Fig. 11. Research approach.



Theoretical research

The theoretical part of this research comprises of an explorative literature review in order to dig deep into the topic, pinpoint important definitions and concepts and help guide the focus of the research. The literature study consists of journal articles, research reports, white papers, press releases from international organizations, scientific papers. The literature can be broadly categorized across the below sequence points:

- Context, background of social value
- Social value in real estate development and investing - definitions and interdependencies
- Impact of Covid-19
- Social value in private sector
- Public drivers of social value
- Business case for social value
- Defining, measuring and delivering social value

The findings of the explorative method build upon qualitative research and literature reviews on the topic of social value. The data gathered through the theoretical research informs a big part of the answers to the two research sub-questions.

Empirical research

The practical part of this research combines qualitative and quantitative methods. It aims at discovering and understanding current perceptions, challenges and opportunities that the industry is facing. This is approached by conducting semi-structured interviews with several built environment industry leaders, as well as by analyzing existing frameworks and measurement tools. A 'mapping exercise' of the collected knowledge (both from interviews and from a qualitative analysis of existing frameworks and tools) is then conducted. The interview data and the qualitative analysis data form the other part of the answer to the two research sub-questions.

Output

Combining data from the theoretical and empirical parts results in two main outputs: a social value definition mapping (roadmap for defining social

value) and a social value 'checklist' for standardizing the measurement process. These two outputs not only directly form the answers to the two research sub-questions but are also practical tools that can readily be used by industry practitioners.

Conclusion

As illustrated in figure 11, the outputs produced by the research are linked to the two research sub-questions. The links are explained in the conclusion part, and a final answer is given to the main research question.

6.5 Practical usefulness

The particular focus of this research is to develop practical tools that can help with the integration of social value considerations into economic and financial models and decision-making tools. More specifically, the report has four objectives:

- Provide an overview of the role the built environment has to play in creating social value, including opportunities to be addressed;
- Provide knowledge on the dimensions of social value and how those can be achieved through strategy and operations;
- Present findings from industry leaders on current perceptions, challenges and emerging practices;
- Map collected knowledge from the theoretical and empirical research with existing tools and frameworks;
- Develop a 'checklist' with comprehensive social impact themes and measurement methods to enable a streamlining and alignment of the measurement process across the industry

Whilst this research focuses on the European real estate industry, the ideas and challenges translate to property industries across the world that are involved in delivering successful and sustainable economies and communities.

6.6 Coaching

The development of this research is supported by Delft University of Technology. My academic mentors, Gerard van Bortel and Peter

Boelhouwer, are professors at the Faculty of Architecture and the Built Environment. Both have deep expertise in the management, governance, and finance of housing projects.

Through informal conversations with colleagues from three organizations (Home.Earth – Denmark, Cushman & Wakefield – Bulgaria and NREP - Denmark), I've also received some suggestions on how to develop this research.

6.7 Relevance

Societal relevance

Too often, social sustainability and financial management methodologies have been perceived and handled as two distinct issues. In this report, it is argued that integrated measurement frameworks shift the focus on creating both financial returns and contributing to social value. The transition to a sustainable future need to serve and benefit the many – leaving no one behind.

At a European level, benchmarks, indicators, and standards that have been agreed upon can help decision-makers assess the social economy's influence on society, promote increased public funding for social economy organizations, and assist donors and investors in allocating funds to interventions that will have the greatest social impact. This report will seek to suggest ways to integrate existing frameworks to make them more effective in allocating resources towards achieving social impact in the built industry.

While some investors are starting to see affordable housing as a low-risk addition to their portfolio – as demand from key workers in public services is likely to remain strong through recessions – the private sector naturally focuses on market- rate housing, where returns are expected to be higher. A well-defined and integrated social value framework can help investors and developers alike understand and quantify the social return they can generate, which, as evidenced in literature,

Through the global lockdown, we have all experienced how the buildings and urban settings we live in truly shape our lives, affecting our health and wellbeing. Investors in the real estate sector need to be part of the change, and drive the transition to a more just, equitable society.

Scientific relevance

Foundations, public entities, family offices and corporations have begun to take a greater interest in using their investable assets to improve their communities—all without trading off the opportunity to earn a financial return.

There's evidence to suggest that more fund managers will focus on ESG in their investments moving forward, and we anticipate that more private equity will enter the affordable housing space over the next several years.

Despite the enthusiasm for delivering social value, few people actually use measurement frameworks to guide decisions. Good managers in the nonprofit sector track expenses and revenues with high rigor, but few employ advanced measures to guide resource allocation. In contrast, political judgment is more important in the public sector than cost-benefit analyses. When decision-makers do apply social value measures, the process is fragmented, inconsistent, and project-specific. Common frameworks are required, and it would be more beneficial to improve them as well as make more use of already existing ones. This research will aim to build on these existing frameworks and suggest ways they can be improved.



Theoretical research

Although social value is not yet financially quantified within the market value of a built asset, it can significantly strengthen the business case for sustainable buildings.

7.1 Social value

Although money, a budget, and value engineering are still crucial parts of any asset development or management, there are now other factors to take into account. All sectors, especially the built environment, are now responsible for providing social value, which includes creating a positive social impact, promoting inclusive growth, supporting restorative environmental benefits, and ensuring that economic progress benefits everyone (Supply Chain Sustainability School, 2020).

Social value is the creation of direct, positive impacts on people and communities by protecting human rights, dignity, and health and well-being, providing community benefit and committing to social justice and equity (Social Value UK, 2021).

From risk mitigation and maximizing social outcomes for the project at the siting, planning, and financing stages to adopting a longer-term view of the social social value and economic advantages generated via operation and use, social value should be considered at all stages of the lifecycle.

Social value is an increasingly popular trend around the world (GC Business Growth Hub, 2020), as it adapts to many contexts, develops as a tool for measurement, and contributes to a larger value proposition and sustainable development both now and in the future.

“In the context of the built environment, social value is created when buildings, places and infrastructure support environmental, economic and social well-being, and in doing so improve the quality of life.” (UKGBC, 2021).

The term Social Value may be interpreted differently across different geographies, and the definition presented in this report is often interchanged with social equity, justice or impact.

These terms have been defined by the BRE as follows (BREEAM, 2020):

- Social equity: the equitable access of all people to resources and opportunities and full participation in the social and cultural life of a community regardless of their background, e.g. age, gender, ethnicity,

culture, socio-economic status, sexual orientation or perceived abilities. Social equity first requires the recognition of the inequities that exist in our societies in order to develop and implement practices that address them.

- Social impacts: the effects on people and communities as a consequence of a built environment related action or activity. Communities include existing residents, businesses and other stakeholders in the local area and all those who interact with the place both now and in the future.
- Social value: the cumulative benefit of all social impacts from the built environment to individuals, communities and local businesses.

Based on the aforementioned definitions, this report will utilize social value as its primary word because it encompasses the collective definitions of the other categories in a wide sense. The priorities of enhancing equity and justice for all people at all stages of the supply chain are synonymous across all terms and remain the fundamental aim of the sustainable built environment movement.



7.2 The impact of covid-19

One of the impacts of Covid-19 has been a dramatic increase in interest and awareness on social value, particularly around health and equity. In the era of the pandemic, it has become increasingly clear that the world can no longer justify tackling issues indirectly and individually, but that a collective approach addressing the total impact on people's quality of life should be prioritised (Bentley, 2021).

The effects of the COVID-19 pandemic are reshaping the profile of sustainable building demand, while influencing the occupancy patterns and prospects of urban spaces and the needs of occupants, owners and managers (Ramboll, 2021).

The COVID-19 pandemic has not only devastated economies but has greatly accelerated the impact of inequality. Inequalities between high- and low-income countries, employment status, population group and income levels have heightened (World Economic Forum, 2020).

According to a survey done in 37 nations, 82% of low-income households—3 out of 4—were affected by a decline in income. This was evident in the USA during the first several months of the pandemic, when over 44 million individuals lost their jobs and the unemployment rate rose to 15% (World Economic Forum, 2020).

While high-income countries found over USD 7 trillion to sustain their businesses, retail jobs and reinforce safety nets, low-income countries had little capacity to do the same (Goldin, 2021). As a result, it is anticipated that business entities and institutions in the public sector would face pressure to guarantee that their investments truly add value to society. A "zero tolerance" policy is cited by 25% of consumers and 22% of investors, respectively, in reference to businesses that tolerate questionable social value practices (Grieshaber, 2021).

For the real estate sector specifically, a notable aspect highlighted by the pandemic has been the increased awareness of the need for buildings to provide healthy indoor environments. Fundamentals of healthy indoor environmental quality include air quality and ventilation, thermal comfort, acoustics, lighting, mental health and access to nature, amongst many others (World Green Building Council, 2020).

Poor indoor air quality and ventilation are associated with increased symptoms of sick building syndrome, increased risk of transmission of infectious diseases and reduced cognitive function (Morawska et al., 2021).

Indoor environmental quality is closely related to income status and equity because lower-quality homes and buildings are frequently ill-designed and built with less expensive materials, leaving residents at a higher risk of negative effects on their physical and mental health and aggravating the disparity in disease transmission (Inside Housing, 2021).

In addition to increasing social value awareness, COVID-19 mitigation measures have pushed the industry to reconsider building and urban design, acting as a market catalyst for the idea that a healthy, just built environment should be the standard (Pinheiro & Luís, 2020).

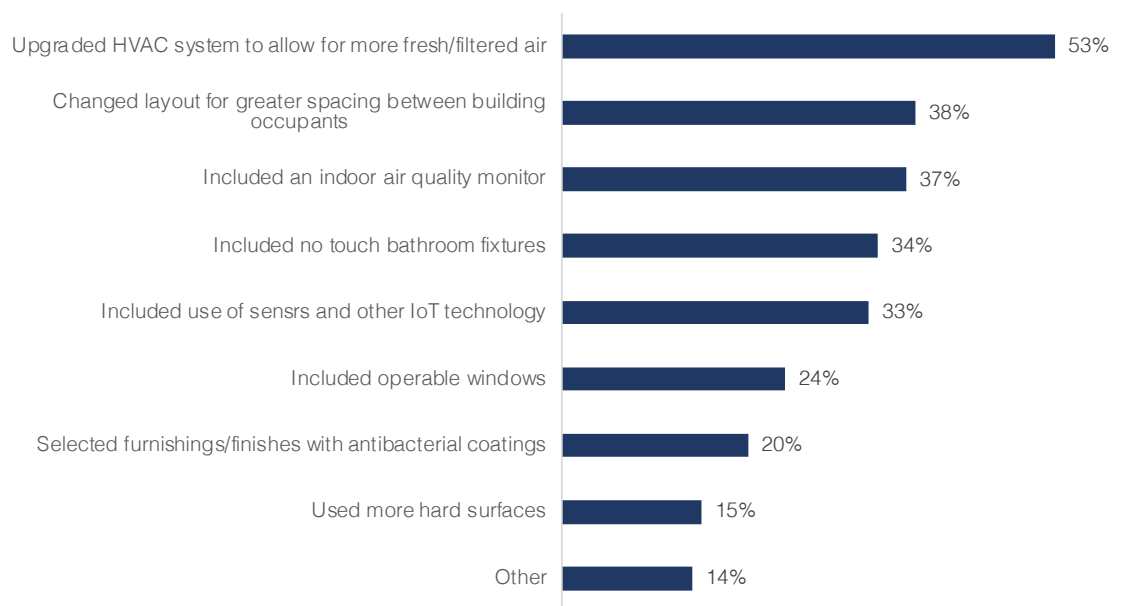


Table 1: "What changes have you made to or seen on your building projects (new or renovation) specifically in response to the COVID-19 pandemic?" (WorldGBC, 2021).

7.3 Housing affordability is a social value

As exemplified in the previous chapter, the built environment industry's activities contribute to a variety of SDGs. One central aspect when looking at the industry's impact on societal development is affordability. According to the Urban Land Institute's Promoting housing affordability report (2020), housing affordability in big European cities has reached a 'crisis level'. Rent prices and affordability of housing are in direct correlation with the wealth of tenants and property owners, and it influences their spending power and consequently both physical and mental well-being. The real estate sector

has an important role to play in fighting the rising wealth inequality and the affordability crisis (Urban Land Institute, 2020).

The impact of the real estate business model has led to the commodification of homes as 'financial assets' that generate yield (Urban Land Institute, 2020). This is called financialization of real estate and is a key reason for the disconnect between social value creation and financial value creation. Viewing assets and projects solely from the perspective of their monetary value or their profit-earning potential means that their impact on societies and the planer is not considered.

Financialisation may seem like a concern that only applies to the private sector, but a recent report from the Urban Land Institute (2020) reveals that the public sector is also oftentimes involved in activities that can result in the financialization of real estate. Many governments are focused on maximizing returns from land and property they own as a source of income rather than focusing on social and economic development needs.



7.4 Public drivers of social value

The government, state, and municipal governments are aware of the need and opportunity to boost the economy while broadening social value and inclusion. Public sector activity is fueling the increase of social value integration.

Public procurement

Public procurement generates expenditure by governments and state-owned enterprises on services and assets, including buildings, infrastructure, and other key services in our communities. The current global value of public procurement is estimated at USD 13 trillion (Hunt, 2021). With such economies of scale, co-benefits of such sizeable investments can generate massive benefits to a local community. National and local governments recognise this need and opportunity to accelerate the economy while increasing social value and inclusion for more communities (European Commission, 2020). By placing a significant weighting on social value and following that through with contractual obligations to report and deliver, governments are promoting a bottom-up systemic change (Osborne Clarke, 2020). Generating and measuring social value is increasingly becoming an expectation within procurement contracts.

A collection of case studies from the EU's built environment sector illustrate socially conscious construction procurement. Local authorities must give social value priority when awarding contracts in the UK under the Public Services (Social Value) Act of 2012. The weighting of the social value parts in procurement contracts has increased from 5% to 40% over the past ten years, reflecting the growing importance of social value in procurement tenders.

A public sector that can demonstrate a strong commitment to social value has been seen to create strong economic benefits and multiplier effect, with institutions managing to increase their spending in the city's local economy by 300% between 2013 and 2017 (UCL Institute of Health Equity, 2015). Enhancing social value is a chance for organizations that want to participate in public procurement procedures or public-private partnerships to improve their competitiveness, financial plans, training initiatives, and visibility. (Cabinet Office, 2020).

Policies and incentives

The public sector plays a key role in both setting an example through procurement but also driving the market transformation through policies and incentives. Internationally, strong messages have been delivered, and there is evidence of momentum as European governments implement laws requiring the protection of human rights and environmental due diligence. For instance, the European Commission directly includes social goals

through initiatives such as the EU Taxonomy and the national development strategies (Local Government Association, 2020).

Available evidence suggests that regulation around social value is most mature in Europe, however there is evidence to suggest that policies around social value, both in procurement and more broadly, have precedent in non-regulatory guidance in markets such as Canada (Social Value Portal, 2021). An increasing likelihood of legislative action on social value is therefore seen, which could be particularly relevant for built environment actors through local planning policies or building codes. Organisations looking to future-proof their compliance should be considering and enhancing social value at all stages of the lifecycle.

7.5 Private sector focuses on social value

A challenge to the traditional economic and financial mindset is the fact that social value creation is a long-term process, as opposed to the typical short-term value creation that rules the industry with its focus on profitability, internal rate of return and land value (Faithful & Gould, 2016). The integration of social value themes requires new ways of thinking that combine both financial and non-financial considerations (Urban Land Institute, 2020).

As businesses recognize market expectations, industry competition, staff retention potential, and rising reporting obligations, social value is growing in the private sector. Programs promoting social responsibility and environmental awareness in the construction industry have opened doors for more ambitious sustainability initiatives along the entire value chain, such as fair and legal labor practices that have boosted the economic growth of more areas (World Bank Group, 2019).

Organizations have also noticed an increase in the value of building assets when users and community requirements are taken into account during the design and construction process (Cooper et al, 2018).

Due to these outcomes, businesses are under more obligation to demonstrate and publicly disclose their supplier chains' ethical and environmentally responsible behavior through CSR reports, raising awareness of social value. The rise in CSR is also driving social value. Due to increasing expectation on reporting and ethical action, there is increasingly quantified and ambitious target setting around social value indicators.

73% of investors surveyed in a UK study state efforts to improve the environment and society play into their investment opportunities, social value is therefore becoming a competitive advantage in the real estate sector (Faithful & Gould, 2016). For instance, in the UK, within a 15-year period, social indicators were noted to increase shareholder value by almost USD 1.7 billion, with CSR reports predicted to help companies increase market value by 4-6% (UKGBC, 2020).

In some markets, social value has developed as a method for measuring the effects of built asset developments on regional communities and broader society. The real estate companies operating in these markets, particularly in the UK, Europe, USA, Canada, and Australia, will have to more formally engage with social value through specialized assessments, which are increasingly sought after by investors and lenders, or in some cases, are mandated by local authorities and regulations (UKGBC, 2020).

Social value assessments quantify benefits to community through parameters including jobs and employment opportunities, and health benefits (UCL Institute of Health Equity, 2015). Compliance with current or incoming policy requirements is another catalyst for increasing social value.

Business executives are increasingly interested in openness and advancement on environmental, social, and governance issues rather than just financial performance (Eccles & Klimenko, 2020). An estimated 90% of companies on the S&P 500 index published a CSR report in 2019, compared to just 20% in 2011 (Grieshaber, 2021).

The consumer market is transitioning to one which values responsibility, and sustainability (WE Communications, 2021). As customers support social and environmental causes more and more, they look for goods and companies that share their beliefs. The upward trend in Corporate Social Responsibility reporting demonstrates the growing expectations, noted as a worldwide trend, of generating social value being a core business objective (Latapí Agudelo et al., 2019).

7.6 Dimensions of social value in the built environment industry

The built environment that shapes the fabric of our lives has the opportunity to enhance social value in many ways - both through assets in operation and throughout the lifecycle. Although these are not currently financially

quantified within market value of a built asset, the provision of social value can enhance the desirability of a project and aligns with corporate social responsibility targets that are increasingly expected in developed markets (Institution of Civil Engineers, 2020).

Providing and enhancing social value is not only the morally correct thing to do – doing so also enhances the financial economic case for investing in sustainable structures. According to the UN Guiding Principles on Business and Human Rights and the OECD Guidelines, there is a rising expectation that businesses uphold human rights throughout their operations and supply chains (both of which are included in the ‘safeguard’ provisions in the EU Taxonomy).

Buildings, communities, and supply chains are the three scales at which the built environment should improve people's lives. Opportunities for the global real estate industry to do this are provided in the sections below.

Enhancing occupant health and well-being

The built environment affects both our physical and mental health, amplified by the fact that people spend an average of 90% of their time inside buildings (US EPA, 2021). The places where we live, work, and learn can improve our quality of life and safeguard our health, but more often than not, they are blamed for bad effects. WorldGBC has a wealth of past research on this topic, demonstrating the link between better buildings and occupant and community health in a range of typologies and geographies - including offices, schools, retail and the residential sector (World Green Building Council, 2020a).

Social value can be created by enhancing health and wellbeing of occupants at building levels with strategies including:

- Design, build, and operate buildings to address common physical health risks resulting from poor indoor environmental quality: poor indoor air quality, thermal comfort, lighting, and other specific building aspects can cause fatigue, stress, loss of productivity, and illness (US EPA, 2021). These risks can be as much as possible reduced through strategic building design and education of building occupants. Pollutant concentrations, such as those caused by particulate matter and volatile organic compounds, can have a negative impact on health and aggravate respiratory conditions like asthma and allergies, but they can

be significantly reduced with good ventilation and the use of healthy, non-toxic materials and furnishings. (US EPA, 2021).

- Reduce transmission of infectious disease: air pollution represents an important factor increasing the risk of mortality from Covid-19, as estimates suggest that particulate air pollution contributed 15% to Covid-19 mortality worldwide (Pozzer et al., 2020). Access to outdoors and green infrastructure, as well as better building design that improves air circulation, can all help to improve tenant health in general. (World Green Building Council, 2020b).
- Support occupant mental health: According to the International WELL Building Institute, buildings can significantly improve cognitive and emotional health through design, technology, and treatment strategies. Sustainable buildings should prioritize the protection of both physical and mental health, creating positive psychological and social experiences (International WELL Building Institute, 2019). Due to the 21% increase in anxiety disorders and 39% increase in mood disorders compared to people living outside urban environments, urban living is associated with a greater stress response in areas of the brain linked to emotional regulation, depression, and anxiety (Reynolds, 2020). Therefore, design and urban planning may play a role in lowering stress and mental health risk.

By enhancing building occupants' health and welfare, sustainable designed environments that avoid or lessen these issues contribute to society. However, as the predicted impacts of forthcoming climate change will likely generate severe health impacts and social repercussions, the challenge of maintaining health will likely heighten in the future.

Supporting social value in the community

The built environment's potential to benefit people economically, socially, and environmentally is the social value proposition for the real estate business. These advantages can be seen at the local level through the provisions of jobs, improved community well-being, resilient infrastructure, and protection of biodiversity and ecosystem services through improved natural capital.

Often, the interests and resources of all social groups are not equally integrated into policy and decision making in the built environment (Ramboll, 2021b) - the risk being that the outcomes will not be socially equitable and just, especially to vulnerable groups. Lower income or

disadvantaged areas are recognised to impact community health and quality of life, further reinforcing the existing inequality in the health of low-income citizens. A core component of social value is that benefits are realised by the entire community.

As per the UKGBC Framework for Defining Social Value, the local community can be defined as “the people who are most impacted by a building, infrastructure asset or place... and will include residents, local business owners, workers and visitors” (UKGBC, 2021). The Framework also highlights that ‘community’ should include future stakeholders, and in some cases future generations. USGBC (LEED)’s ‘Social Equity within the Community’ calls for “fairer, healthier, and more supportive environments [...] that respond to the needs of the surrounding community to promote a fair distribution of benefits and burdens, promoting fair trade, respect for human rights, and other equity practices among disadvantaged communities” (U.S. Green Building Council, 2020). The advantages and effects on the aforementioned community groups can be measured by social value assessments or social equity assessments in marketplaces where social value is becoming increasingly important (U.S. Green Building Council, 2020).

A sustainable built environment can provide social value to people in the community, such as:

- Jobs and employment opportunities, addressing skills gaps and providing opportunities in high growth sectors (Government Commercial Function, 2020) - For instance, the International Labour Organization estimates that if the correct policies are implemented, a change to a greener economy might result in the creation of 24 million additional jobs globally by 2030 (United Nations, 2019).
- Better environmental quality as a result of ecologically friendly construction methods that produce less dust, pollution, traffic, and noise, or other actions like less vehicular pollution and improved green infrastructure. Building renovations can also contribute to neighborhood restoration.
- Economic development from regenerating brownfield sites, plus the presence of workers who make financial transactions in the community, contributes to a positive multiplier effect.

“Almost all modern construction projects around the world are subsidised with slavery, due to unchecked forced labor that permeates thousands of raw and composite materials sourced globally to locally”

Design for Freedom, 2020.

- Resilient building and infrastructure design should protect the wider community in face of extreme weather events and future climate impacts (Stanley, 2019).

In general terms, these improvements will likely contribute to improved public health safety, and well-being, plus will provide economic stimulus to an area - contributing to a social value and improving the quality of life in cities at a community level.

Social equity throughout the whole life cycle

Social value is often focused on building occupants or the local community in the built environment. However, enhancing health, equity, employment opportunities and human rights at all stages of the lifecycle must also be considered.

The Universal Declaration of Human Rights and the ILO Fundamental Principles on Rights at Work are two examples of international human rights standards. They cover topics like worker rights and freedoms, reducing the risk of forced labor and modern slavery, safe working conditions with fair pay, gender equality (including pay equality), the right to adequate housing, and community obligations. The UN Guiding Principles on Business and Human Rights outline the responsibilities of businesses, the obligations of governments toward private sector actors, and guidelines for access to remedies. The preservation and improvement of the health and quality of life of the millions of people who are directly engaged in the construction industry globally, which accounts for about 7% of the global workforce, must be a priority for the global real estate sector (McKinsey Global Institute, 2017).

WorldGBC recognises increasing attention on human rights and modern slavery across the built environment industry in recent years, especially within the materials supply chain and construction sector where human rights violations are known to be endemic within the sector (Buckley et al., 2016).

Forced labour and human trafficking is an estimated USD 150 billion industry, holding 25 million people in modern slavery (University of Birmingham, 2017). Research tells us that modern slavery occurs in every region of the world and underpins the material supply chain upon which the built environment and construction sector relies (Grace Farms Foundation, 2020). The scale of the industry, its lack of modernisation and fragmentation down the supply chain makes tracing the journey of materials in the

construction industry very difficult. Increasing industry awareness is a necessary first step for action.

The welfare of construction workers and respect for human rights is another important social value to take into account. Construction workers are at a significant risk of contracting a variety of ailments. It is generally known that exposure to dangerous compounds, like asbestos or silica dust, increases the risk of developing lung and other malignancies as well as other respiratory and cardiovascular conditions (Health and Safety Executive, 2021).

In most regions, migrant workers make up the majority of the construction labor. Evidence demonstrates that construction employees routinely endure risky working conditions, meager or even unpaid wages, and other types of exploitation on building sites in every location (Institute for Human Rights and Business, 2020).

In some regions of the world, such as the Gulf States in the Middle East, the majority of construction firms have been disclosing what measures they have in place to meet local labour laws in recent years (Bhacker, 2016). Because of the growing awareness of human rights abuses in the building industry and the emergence of movements like the Design for Freedom movement, it is anticipated that monitoring will be rising. Leading voices are urging private sector organizations and policy makers to raise awareness of and expectations for transparency across the supply chain. It's conceivable that eventually, market demand will match this growing customer expectation.



Opportunities to address social equity are:

- Through supply chain audits, specifications in tenders, and subcontracting regulations, ensure the protection of socially disadvantaged groups in the labor market and within the construction industry, such as migrant workers, who do not have the same protection as others.
- Addressing diversity disparities: Organizations should encourage diversity within the industry, as it is generally known that gender equality is lacking in the built environment.
- Supporting a just transition: The decarbonization process may put marginalized low-income populations at greater risk of vulnerability. (Ramboll, 2021a), for example by forced movement into low-income neighbourhoods. Social value with sustainable development means protecting the livelihoods of all as we transition to a decarbonised society.
- Raise awareness of social value challenges outside of current stakeholder influence, particularly human rights and modern slavery within the supply chain.

Organizations are now joining forces to promote better supply chain transparency. In recent years, an increasing number of multinational corporations have made the commitment to only do business with suppliers who uphold ethical and environmental norms (Villena & Gioia, 2020).

The transition to a sustainable future needs to serve and benefit everyone, leaving no one behind. There can be no sustainable transition without a just transition.

Environmental action is part of social value

The environmental improvement brought about by decarbonization and climate action in our buildings, infrastructure, and cities is part of the social value case for the built environment. Environmental action in the built environment is increasingly high profile - shown by recent research that net zero carbon buildings are considered in the “World Green Buildings Trends 2021” as the most important concept to improve the building and construction industry's sustainability, followed by controlling embodied carbon on projects (Dodge Construction Network, 2021). As with social

considerations, environmental actions must also be considered across all stages of the building and construction lifecycle.

Opportunities of taking environmental action as part of a real estate social value strategy include:

- Reducing ambient air pollution by reducing the burning of fossil fuels, as well as the urban heat effect in cities and communities, which has local as well as global benefits.
- A decreased chance of fuel poverty as a result of energy efficiency measures
- Efficient use of natural resources, including water, is essential given that global water consumption has increased twice as quickly as population growth over the past century (United Nations, 2014) and that nearly half of the world's population already resides in regions that may experience water scarcity for at least one month of the year (United Nations, 2014).
- Sustainable infrastructure and building assets can provide greater physical and systemic resilience to current and future effects of climate change.
- During the material sourcing phase, construction phase, operation phase, and end-of-life lifecycle phases, the protection and enhancement of biodiversity and enhancing stocks of natural capital.
- Decarbonization today will increase the likelihood that future policy changes will be complied with, align with commitments on net zero and science-based targets, and serve as a risk mitigation strategy for corporate reputation at a time when consumer and financial sector expectations are changing.

Environmental action is part of the definition of social value (National Social Value Taskforce, 2020). However, social value imperatives are not yet reflected in financial parameters, even with increasing quantification of social value outcomes.

7.7 Creating social value

A 2021 report from the UK Green Building Council lays out the foundation for a process to deliver social value (UKGBC, 2021). Illustrated in figure 12, the process is a cycle that contains three main components: Defining social

value, strategy, targets and measurement method selection, and finally Implementation and outcomes. At the last phase, upon implementing necessary actions and analysing results, it is important to take the opportunity to continuously review progress and strategic intentions.

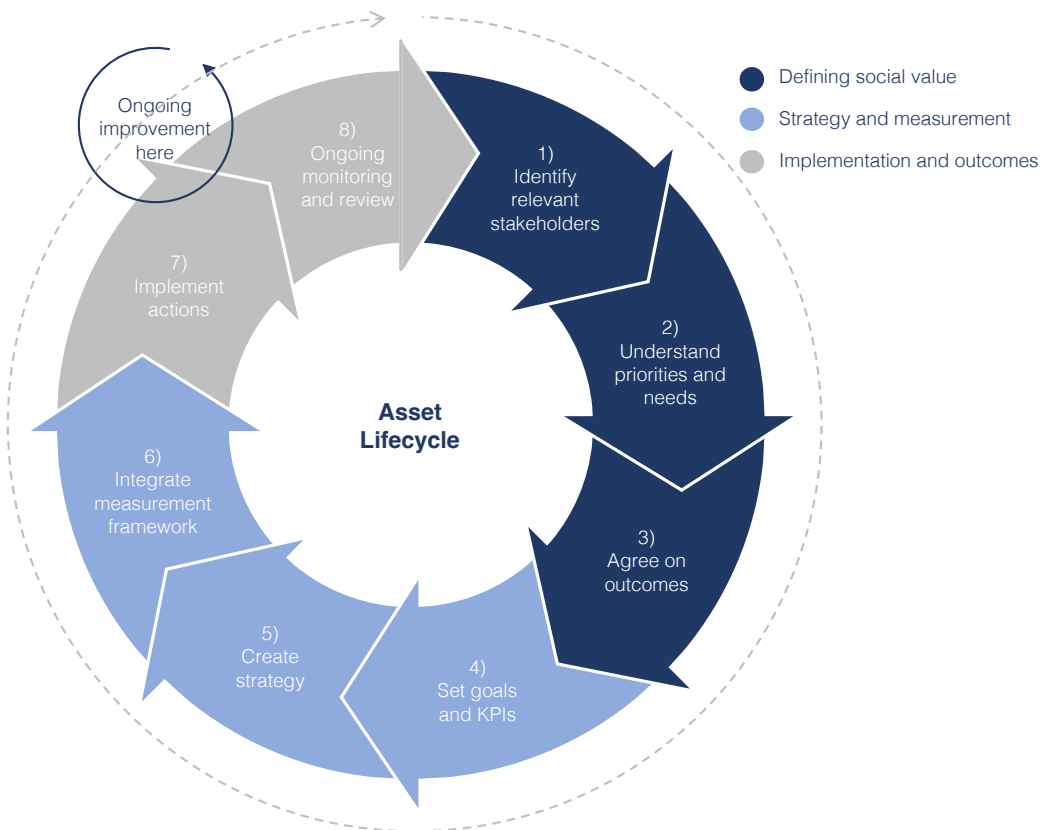
The process for delivering social value is meant to begin at the earliest stage of a project and continue across the entire lifecycle of an asset, all while the local community and other relevant stakeholders are properly engaged (UKGBC, 2021).



7.8 Defining social value

As mentioned earlier, defining social value in the context of built environment projects is difficult. The reason for this is the contextual implications to the definition – for every project there is a different group of stakeholders with different priorities and requirements (UKGBC, 2021). A big, green open space might benefit one community and its local population, while improved cultural and leisure facilities might bring social value to another community, and a third community could benefit from economic growth and job creation. While the actions and results of the intention to deliver social value might differ, the ultimate goal is an improvement of quality of life. This ultimate goal of improving lives should be a guiding principle in the process of defining social value (UKGBC, 2021).

The fact that social value is dependent on the project context means that project teams should define social value for the specific development they are working on (UKGBC, 2021). The UK Green Building Council's Framework for defining social value (2021) has outlined three main steps in the process of defining social value. In a project-specific context, first identify all relevant stakeholders, based on how impacted their quality of life would be as a result of the project. Secondly, understand the priorities and needs of the stakeholders identified in the first step. Thirdly, agree on a set



of project-specific social outcomes based on the priorities and needs identified in the second step.

Fig. 12: The process of delivering social value. Adapted from the UK Green Building Council.

7.9 Measuring social value

Measuring social value has become a vital part of communicating and committing to social value creation across the development lifecycle. Across the board, these metrics are in high demand: Government officials, policymakers, and budget offices must account for their spending

decisions; investors want hard data comparable to profit measures; and nonprofits must show their impact to funders, partners, and beneficiaries. Foundations want to direct their funds to the most effective programs (Mulgan, 2010). As a result, the practice of measuring social value in the built environment is one that is rapidly developing. Despite the enthusiasm, very few people actually employ complex metrics to help with resource allocation (Mulgan, 2010).

Financial actors look to compare the social value of development proposals to help inform investment decisions in a quantified and consistent way (Mulgan, 2010). In order to reflect the social value of portfolios, asset managers must start using readily available data that can be aggregated across various asset classes and regions. Common measurement approaches include cost-benefit analysis and well-being valuation, with useful databases and tools already in place such as the New Manchester Economy Unit Cost Database or the HACT Social Value Bank. The ability to measure social value within and across geographies is anticipated to improve in order to support the continued rise in importance of social value within ESG assessments, private sector sustainability targets, public procurement targets, policy directives, and more. Although currently not reflected in asset value or other financial parameters, it is suggested that the increased ability to quantify social value will initiate this change and catalyse market momentum which favourably values built assets that advance social value across the supply chain. Investor requirements for social value are called for, as the built environment sector is starting to mainstream action on sustainability.

According to (Mulgan, 2010), four inescapable complexities are reflected in the public and private sectors' inability to measure the value they generate. The first and most obvious reason for this failure is that, in contrast to natural science, the field of social science lacks hard laws and regularities, and only a small number of social impact domains permit precise predictions about what causes will result in what outcomes.

The diversity in morality and ethics among people is a second factor. Measuring social value is challenging since there isn't always consensus on what should happen as a result of a social impact investment. Philosophers, such as Luc Boltanski, have described the fact that societies consist of competing systems of justification and valuation (Crepell, 2007), and social value metrics tend to try to deny this.

The unreliability of existing metrics is another aspect to consider. For example, Social return on investment (SROI) is known to estimate the cost and paybacks of an investment in an abstract matter, which dramatically influences the final calculated value (Mulgan, 2010).

A final reason for the difficulty of accurately measuring social value is the problem of time. SROI metrics use the typical discount rates to account for expenditure assumptions, and correctly predicting how much good an initiative can bring about several years into the future, compared to the costs associated with implementing this initiative now, is not an easy task (Mulgan, 2010).

Scanning through existing social value quantification tools, such as the collection described in Table 2, it becomes evident that there are many competing and overlapping methods. Interestingly, research (SSIR, 2021) shows that organisations use different types of quantification approaches based on if they are NGOs and foundations, governments and public players or private companies.

Table 2: Social value quantification methods. Based on theoretical research.

	Description	Challenges
Cost-Benefit Analysis	The most widely used family of tools; counts up costs and benefits and then applies discount rates. Often used for large public programs	Disagreements about the actual numbers and weightings in the calculation, as well as the conclusions of the analysis
Stated Preferences	Ask people what they would pay for a service or outcome	Stated preferences often do not correlate with actual behaviours
Social Return on Investment (SROI)	Estimates the direct costs of an action, the probability of it working, and the likely change in future outcomes sometimes with discount rates	Disagreements about numbers, weightings, and conclusions; values; how to handle time and discount rates; and intended audience of the calculation
Public Value Assessment	Judges how much the public values a service	Not rigorous enough
Life Satisfaction Assessment	Judges social projects and programs by how much extra income people would need to achieve an equivalent gain in life satisfaction	New approach that remains unproven

In order to use any of the quantification methods described in table 2, organisations need to know what indicators to include in the calculation. Cooper et al (2018) conducted a research that found a high degree of consensus about what is considered by the real estate industry and individuals to be a good development. The table below (Table 3) summarises the main characteristic (and ways to measure those) for delivering social value and creating better places and economic success,

Table 3: A collection of common characteristics of how a project can deliver social value (Cooper et al, 2018).

	Main aspects	Measurement techniques
Character	<ul style="list-style-type: none"> Reinforces locally distinctive patterns of development and culture; Reflects factors such as architectural style, density of development, vegetation, scale, materials and variety of land uses; Historical and culturally important buildings and monuments are protected and preserved 	Building for Life 12; LEED 2009 for Neighborhood Development; National Trust for Historic Preservation "Older, Smaller, Better: measuring how the character of buildings and blocks influences urban vitality".
Continuity and enclosure	<ul style="list-style-type: none"> Continuity of street frontages and the enclosure of space by development, which clearly defines private and public areas 	National Trust for Historic Preservation "Older, Smaller, Better: measuring how the character of buildings and blocks influences urban vitality"; The Urban Design Compendium
Quality of public realm	<ul style="list-style-type: none"> Public spaces and routes that are attractive, safe, uncluttered and work effectively for all in society, including disabled and elderly people; Public, private and service zones and their uses are clearly defined; Streetscape has access to and facilitates interaction with public spaces 	Manual for Streets; Secured by Design Guidelines; National Trust for Historic Preservation "Older, Smaller, Better: measuring how the character of buildings and blocks influences urban vitality".
Ease of movement	<ul style="list-style-type: none"> Accessibility and local permeability; Putting people before traffic and integrating land uses and transport 	Building for Life 12; Manual for Streets; The Urban Design Compendium.
Legibility	<ul style="list-style-type: none"> Places that people instinctively understand through recognisable routes, intersections and landmarks that help people find their way around the buildings, spaces and features 	Building for Life 12; National Trust for Historic Preservation "Older, Smaller, Better: measuring how the character of buildings and blocks influences urban vitality"; The Urban Design Compendium.
Adaptability	<ul style="list-style-type: none"> Buildings and spaces can be reused; Responds to changing social, technological and economic conditions 	BREEAM Communities; LEED 2009 for Neighborhood Development.
Diversity	<ul style="list-style-type: none"> Diversity in community; Offers choice through a mix of compatible developments 	Building for Life 12; National Trust for Historic Preservation "Older, Smaller, Better: measuring how the character of buildings and blocks influences urban vitality".
Sustainability	<ul style="list-style-type: none"> Protection of ecosystems; Energy efficiency, minimises waste, minimises pollution, protect and enhances the natural environment; Increased flexibility of buildings over their lifetime 	BREEAM; BREEAM Communities; LEED 2009 for Neighborhood Development.
Healthiness	<ul style="list-style-type: none"> High levels of mental and physical well-being 	Addressed in BREEAM Communities and LEED 2009 for Neighborhood Development.
Participation	<ul style="list-style-type: none"> Those affected by development are be active participants in the decision-making process 	Building for Life 12; BREEAM Communities.
Economic prosperity	<ul style="list-style-type: none"> Economically viable location for businesses and people; Promotes long-term economic prosperity in the area and its surroundings; Creates employment opportunities 	Economic impact analysis; statistical analysis of businesses starting up or relocating; population growth; indices of deprivation; GDP change.
Revenue generation	<ul style="list-style-type: none"> Generates local authority income streams through business rates, council tax, etc; Commercial gain through price growth and higher rental yields 	Historic analysis of business rates, council tax and house prices.

7.10 Key takeaways from theoretical research

The built environment industry has a central role in delivering social value through its links to a number of the UN's Sustainable Development Goals (SDGs). As people spent 90% of their time indoors, and virtually all of their time in the built environment, the industry shapes how and where people live, work and play.

However, the industry is also known to create negative impacts on society and the environment, and it also amplifies inequalities.

The real estate sector, which is fragmented and opaque, is responsible for driving wealth inequalities through its prioritization of profit and the financialization of assets. However, integrating social value in the strategic intentions of companies, both public and private, reveals an opportunity to address this challenge through the provision of affordable housing. Affordability is one of the pillars of social value.

An increased interest in social value is observed in the industry, for example through sustainable/impact investing products. This interest is driven by increased regulation, investor pressure and societal trends.

The business case for social value integration is here. Social value is becoming a competitive advantage by, for example, playing a role in investment opportunities for private companies. Social value's long-term horizon, however, poses a challenge to the typical short-term financial profit mindset.

The theoretical research also shows evidence of expert knowledge on how social value can be created – from supporting communities, through the provision of affordable housing, to indoor climate's impact on health and well-being. Information is also available on topics such as measurement and financial quantification methodologies.

With all these developments in the social value practice in the background, the built environment industry has as of now not reached a consensus on how social value should be integrated and managed.

Theory shows there's a myriad of frameworks and tools emerging that aim to tackle this challenge, however many organizations are nonetheless 'reinventing the wheel' by developing custom-made definitions and measurement approaches.

Industry perspectives

As the theoretical research concludes, the built environment industry has a central role in creating social value through its contribution to the SDGs. Stricter regulation and increased investor interest and pressure has caused the industry to focus on delivering social value. However, social value is less tangible and quantifiable than other sustainability themes, so actors in the industry are not clear on how to proceed. To examine this challenge, the research will conduct semi-structured interviews with leaders from frontrunning organizations in the real estate world.

Three perspectives will be considered – that of the investor, that of the real estate developer/asset manager and that of an expert in housing. This ensures that the views of all main stakeholders directly responsible for the definition, creation and measurement of social value in the built industry will be considered.

The purpose of the interviews is to get input from industry professionals on how social value should be defined and measured. That input might reinforce theoretical findings, but it might also provide new insights.

8.1 Selection criteria

Since this research is exploratory, the selection criteria is limited in nature, allowing for more companies and interviewees to be considered. The selection criteria that were applied when looking for suitable participants is shown in table 4.

	Company A Country X	Company B Country Y	Company C Country Z	Company D Country X	Company E Country Y	Company F Country Z	Company G Country X
UK Required							
	Invests in/manages/ develops affordable housing (>5 years)	V	V	V	V	V	V
	Has a measurement tool in place that evaluates the social impact created by the asset/development	V	V	V	V	V	V
Desired	Is a recognized sustainability/ESG front-runner	V	X	V	V	V	V
	Is PRI/B.Corp/GIIN/UN Global Compact/GRESB certified or equivalent	V	V	V	V	X	X
	Based in the European Union	X	V	V	X	V	X

*Table 4:
Selection
criteria*

8.2 Interview participants

A full list of the considered companies can be found in Appendix B. Figure 13 showcase the contacted companies in each of the three categories – investment company, asset management or development company and a housing expert.

Table 5: Evaluation criteria for companies representing the investor's perspective showing the companies participating in this research.

		Investor			Asset/Development manager			Expert
		MN Netherlands	NREP Sweden	Syntrus Achmea Netherlands	NCC Denmark	Nelio Concepts Finland	NREP Denmark	Places for People UK
Required	Invests in/manages/ develops affordable housing (>5 years)	V	V	V	V	V	V	V
	Has a measurement tool in place that evaluates the social impact created by the asset/development	V	V	V	V	V	V	V
Desired	Is a recognized sustainability/ESG front-runner	V	V	V	V	V	V	V
	Is PRI/B.Corp/GIIN/UN Global Compact/GRESB certified or equivalent	V	V	V	X	X	V	X
	Based in the European Union	V	V	V	V	V	V	X

MN is a large asset manager that carries out the pensions administration for almost two million people in The Netherlands. Aims for both financial and social return and long-term value creation for its stakeholders.

Syntrus Achmea is one of the largest European real estate investment managers. They proactively choose to invest in sustainable real estate that offers both financial and social returns.

NREP is leading private equity real estate firm founded on the idea that real estate, the world's largest product category, is ready for a change. They are committed to leading and accelerating the way towards a carbon neutral

sector, pledging to decarbonize their real estate portfolio already by 2028 – encompassing both operational and embodied carbon.

The following companies representing the real estate developer/asset manager's perspective participated in the research:

NCC is leading construction company in the Nordics. Operations include residential and commercial property development, building and infrastructure project contracting, as well as asphalt and stone materials production.

Nelio Concepts is a Helsinki-based developer rethinking urban living. Their focus is on developing serviced residential housing.

Additionally, an expert on social value in the field of housing can provide more technical knowledge of the topic.

Places for People is a leading affordable homes provider that takes a commercial approach to delivering social value and making a difference.



Fig. 13: Participants in the interviews.

The interviewees who participated in this research were all senior in their respective organisations – typically at a director or manager level.

			
Interviewee	Gustaf Lilliehöök	Kristel van Dam	Peter van den Tol
Stakeholder type	Investment professional	Investment professional	Investment professional
Company	NREP	Syntrus Achmea	MN
Role	Partner	Senior ESG Researcher	Impact Investing Manager
Country	Sweden	Netherlands	Netherlands

			
Interviewee	Aleksa Pešič	Anna-Mette Monnelly	Rasmus Grosen Olsen
Stakeholder type	AM/Developer	AM/Developer	AM/Developer
Company	Nelio Concepts	NCC	NREP
Role	Head of Concept	Head of Sustainability	Sustainability Manager
Country	Finland	Nordics	Denmark

	
Interviewee	Corne Koppelaar
Stakeholder type	Expert
Company	Places for People
Role	International Director
Country	UK

Investment professionals

- Partner, NREP (Sweden) - Gustaf Lilliehöök

Gustaf leads NREP's corporate development and its ambitions to be an impact champion. His 20+ years of professional experience spans management consulting, banking, investment management and real estate.

- Strategy Manager, Syntrus Achmea (Netherlands) – Kristel van Dam

Kristel work on advancing Syntrus Achmea's strategy and innovation department, and has experience from real estate, social housing and investment management.

- ESG Manager, MN (Netherlands) - Peter van den Tol

Peter leads MN's impact investing advisory and also sits on the advisory board of GRESB. His expertise spans responsible investing, circular economy and architecture.

Real estate developers

- Sustainability Manager, NREP (Denmark) - Rasmus Grosen Olsen

Rasmus is part of NREP's strategic sustainability team, working on achieving the company's ambitious goals. Rasmus bring experience from the Green Building Council, the insurance industry, and real estate.

- Sustainability Director, NCC (Denmark) – Anna-Mette Monnelly
Apart from leading NCC's sustainability department, Anna-Mette also brings experience from architecture and consulting.
- Head of Concept and Product, Nelio Concepts (Finland) – Aleksa Pešič

Aleksa brings a combined 20+ years from the fields of engineering, construction, project management. He is currently leading Nelio's concept deptment, focusing on serviced living solutions.

Expert

- International Director, Places for People (UK) – Corneille (Corné) Koppelaar

Corné is director at one of the largest housing providers in the UK. His experience spans finance, real estate consultancy and social housing development.

The interviewees represent a vast collection of stakeholders in the built environment. Companies covered include a pension fund, investor in real estate, investor in built environment technology and innovation, real estate private equity, a construction company, affordable housing developers, and a new living concepts developer. Through this selection of interviewees, a wide range of sectors within real estate are covered, such as residential, mixed use, retail, logistics, office, residential were also covered.

8.3 Analysis process

Interviewees will be asked a set of questions relating to social value definition and social value measurement. The complete interview protocol can be found in Appendix B

Their responses will be analyzed based on interviewee perspective (investor, asset/development manager or housing expert), as shown in figure 14. The intention here is not only to map some exiting stereotypes among these three main stakeholders, but also to look for new insights or disagreements. Corresponding graphs accompanying each interview topic will illustrate how responses vary or appear similar based on perspectives.

The data gathered through the semi-structured interviews will be analyzed using the Atlas.ti software, where interviewee responses were coded and labeled with concepts identified throughout the theoretical research. This labeling was carried out on a question-base.

The data from the respondents will be used later on in the empirical research process to

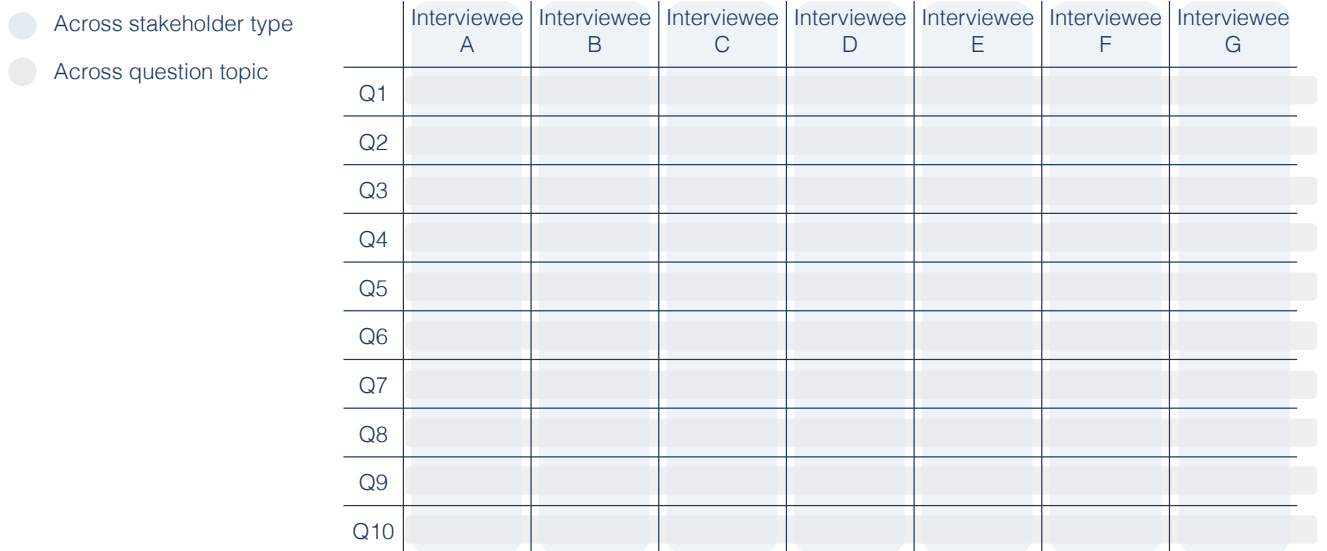


Figure 14: Interview data analysis process. Responses were analyzed in two parallel ways – across all stakeholders based on a single question, and across a single stakeholder group based on all questions.

8.4 Data management and storing

All interview data is collected in accordance with the GDPR (General Data Protection Regulation). Before the commencement of each interview, participants were asked to sign an Informed Consent Form, which can be found in Appendix B. The Informed Consent Form asks interviewees to confirm that their participation is voluntary, that they are made aware of the fact that the interviews will be audio recorded and that the data will contribute to this graduation research. The form also gives interviewees the opportunity to remain anonymous if they prefer, as well as review and select quotations that may be used in the final report. The form also informed interviewees that the interview results as part of the graduation thesis, will be published and accessible at TU Delft's online student thesis repository.

Regarding data storing, audio files are to be stored offline on the researcher's personal laptop and will be discarded up to a week after the final version of this research has been submitted. Personal information such as email addresses will remain private and will not be shared. TU Delft's DMPOnline tool will be used to set up a data plan compliant with the GDPR.

As already mentioned, the final version of this research will be published on and accessible via TU Delft's student thesis repository at this [address](#). This is done as the research follows the FAIR (Findable, Accessible, Interoperable, Reusable) principles.



8.5 Interview Results

In order to direct the interview discussions towards the research questions of this research, the interview protocol is split into two parts: questions on how to define social value, and questions on how to measure social value.

Defining social value

Next, interviewees were asked about how their organizations define social value. A big part of them mentioned that they have not yet arrived at a clear and coherent definition. As evidenced in the theoretical research, social value is known for being difficult to define, especially for built environment projects. The reason for this is the fact that each project is unique in terms of its stakeholders and their interests, as well as needs and expected outcomes. For example, one community could benefit from job creation, while another could gain social value through improved social infrastructure. Regardless of this variation in project/location-based expected outcomes, the end goal of social value is to positively impact quality of life. This notion was reflected in all the most common answers in the interviews. Interviewees from all stakeholder groups talked about creating and fostering communities, working on solving emerging megatrends such as obesity, livability, affordability, contributing to people's health and well-being.

The two development managers interviewed talked about the 'business case' for social sustainability and how creating value for customers is a good approach when defining social value.

It was interesting to see the attention and resources allocated on a strategic level by some organizations in their pursuit of defining social value. Some interviewees explained they are currently working with external consultants (including anthropologists) to help them understand how to best frame social value.

One of the development managers revealed an interesting concept of 'holistic sustainability', encompassing social, environmental and economic factors in one indivisible aggregate group. According to him, it makes no sense to isolate any of these three dimensions and try to define them separately.

“Our definition is not set in stone. What’s important to us is that value remains permanent, meaning it stays there after the project is delivered and the development team has left. That encompasses anything from jobs created to privacy needs of tenants being met.”

Anna-Mette Monnelly

To conclude, the interviewees, no matter how much they have advanced in the process of defining social value, all shared the view that social value is essentially described as actions targeted at making a positive, long-lasting difference in people's lives. It was highlighted by interviewees that social value should be strategic and intentional and should be embedded as a core component of an organization's leadership and business model.

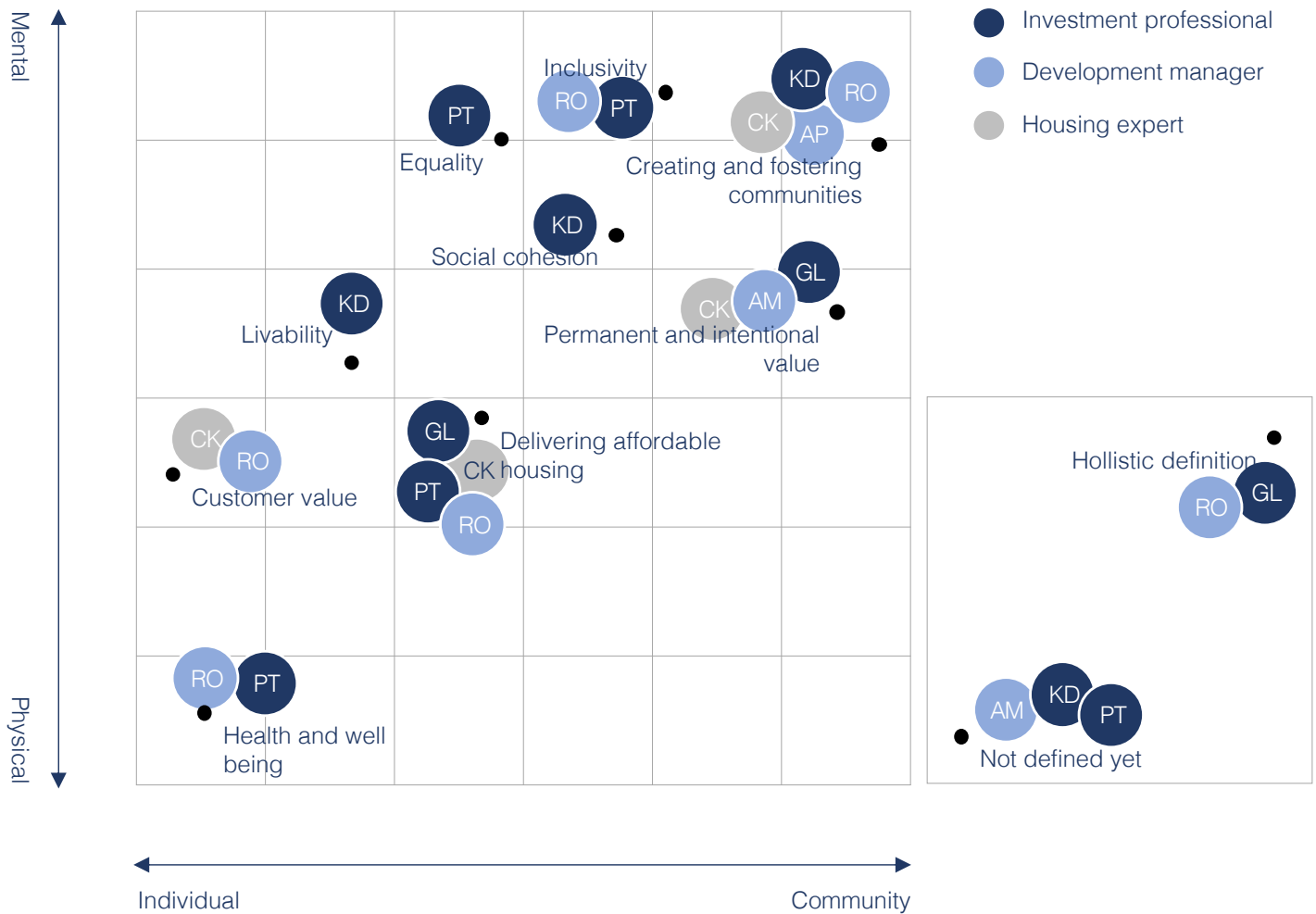


Fig. 15: How does your organization define social value?

“We view sustainability as a holistic group of dimensions – social, environmental, and economic. Social sustainability is then embedded in the core of whatever we do, since we want to make real estate better by enriching people's lives.”

Rasmus Grosen Olsen

The importance of social value creation

A paradigm shift is observed, where an increased interest in stakeholder capitalism, the SDGs, etc has prompted organizations to re-evaluate their impact on communities and society as a whole. In relation to this trend, interviewees were asked about their motivations for considering and integrating social value in their practice.

Two main groups of drivers could be identified in respondents' answers – regulatory context from one side, and company purpose to act on positive impact on the other. On company purpose, that

Development managers and investors mentioned some financial and economic benefits of including social value when planning products, for example long-term financial gain and delivering for growing customer demands and expectations. A development manager pointed out that integrating social value is a credible business case, especially in the wake of ever-growing urbanization.

All of the interviewees dismissed the notion of considering social value purely for reputation, PR and branding purposes as a driver for their organizations. This is a positive tendency as essentially it shows that the threat of “ESG washing” – the risk of organizations making claims about their positive contributions for commercial benefit while actually not delivering that contribution, is not present within the interviewed organizations. It essentially proves the opposite - that social value creation is deeply embedded in company strategy and influences decision-making in a meaningful way.

“We need to consider community benefit to remain relevant”

Rasmus Grosen Olsen

I think it truly matters, it's part of the well being of all of us, each and every one. So if we are not belonging, if we don't have psychological safety in our everyday lives, I think that's a pretty negative thing for the individual, but then also for the larger community or society, and it all has monetary value or impact that needs to be managed on many levels from big to small.”

Aleksa Pesic

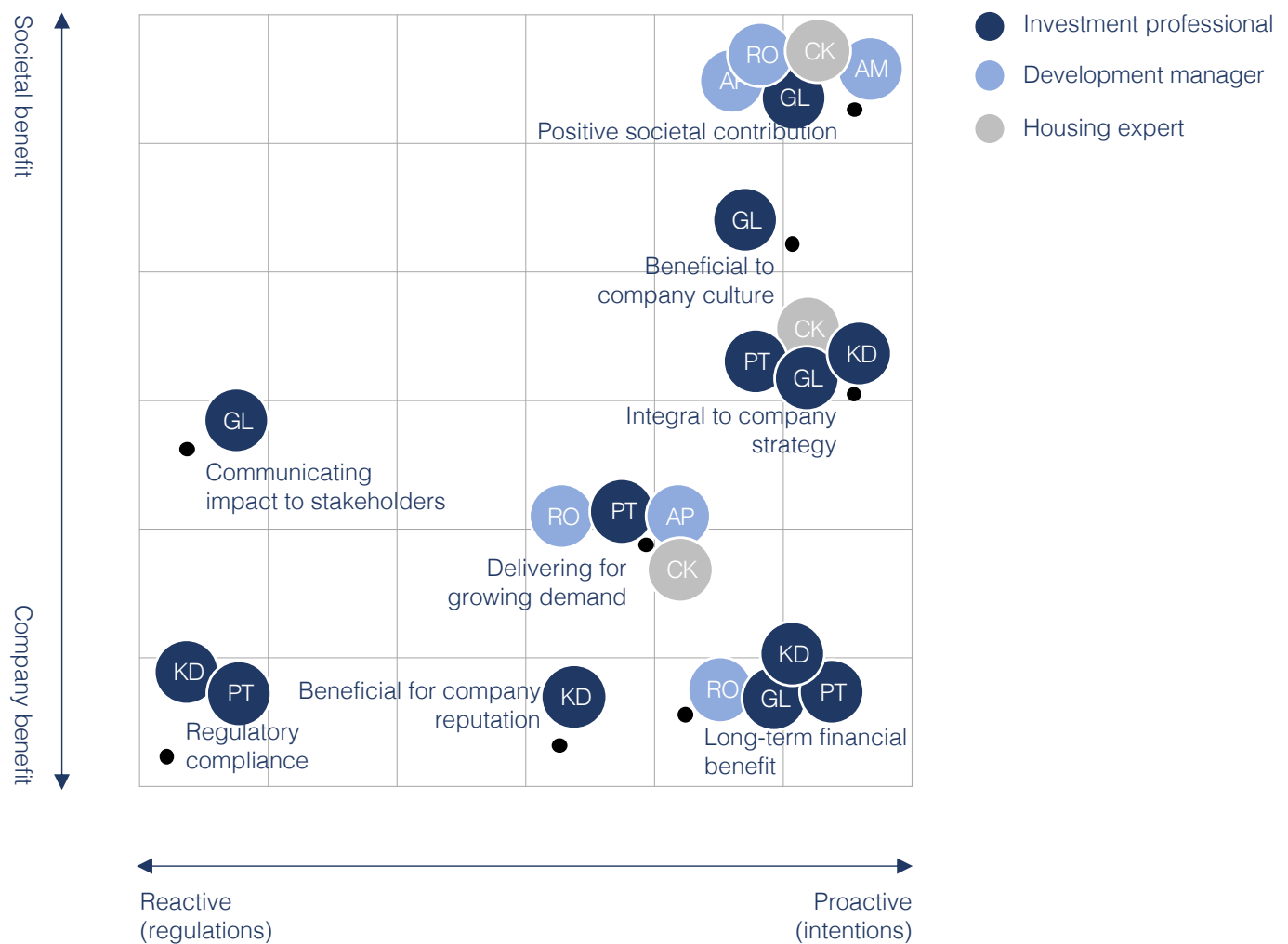


Fig. 16: Why does social value creation matter?

“The firm has an intention and a purpose to achieve more than just making the most amount of money in the shortest amount of time possible. There are companies that have that as their objective. That's not our objective. Our objective is to have a positive impact and to progress the industry with regards to broader social development”

Gustaf Lilliehöök

Main components of social value creation

When asked about the factors that influence social value creation, interviewee responses outlined a clear distinction between two main groups of factors – ‘physical vs experience’. These are factors related to physical comfort, health and well-being (including obesity, etc) as opposed to factors related to place-making, community engagement and affordability.

An overall positive customer experience, which combines both of these two groups of factors, was also a topic that the real estate developers and investors touched upon. Positive customer experience is critical for any business to ensure sustained growth and promote brand loyalty, including housing providers.

Community engagement and social cohesion (including diversity and inclusion) was a topic that most of the interviewees talked about in one way or another. All of them agreed that, while the physical, material quality of housing is important, a focus on finding solutions to emerging societal challenges is key. Building healthy and sustainable communities includes mental well-being, and, according to one interviewee, this has prompted some organizations to start investing in different kinds of infrastructure as well, such as leisure centers. Investing in cultural venues and social infrastructure (such as community centers, educational facilities, health centers) can greatly improve quality of life and mental well-being, thus strengthening social value. In terms of broader community engagement, interviewees recognize the need for deep understanding of local context, the priorities of local stakeholders and the needs of local authorities, in order to create meaningful social value.

Some of the interviewees, notably the housing experts and some of the investors, accentuate the increased focus on developing properties that aim to provide affordable rents. This way, their properties can attract diverse demographic groups, including people on low income, elderly people, students, etc., contributing to the creation of inclusive communities.

Job creation and economic stability is also considered by some of the interviewees to be a factor influencing social value. Ways to support job creation include facilitating businesses to come to the area.

One of the interviewees elaborated on the importance of providing the opportunity for residents and locals to participate in shaping the environment. By doing this, people get a sense of ownership and willingness to contribute to the local area, ensuring a healthy self-sustaining community.

“In Denmark, developers and architects have been building nice open spaces, but really, what are we solving here? I mean, it’s our obligation in the built environment to make places nicer. We need to focus on conscious work towards solving rising societal issues.”

Anna-Mette Monnelly

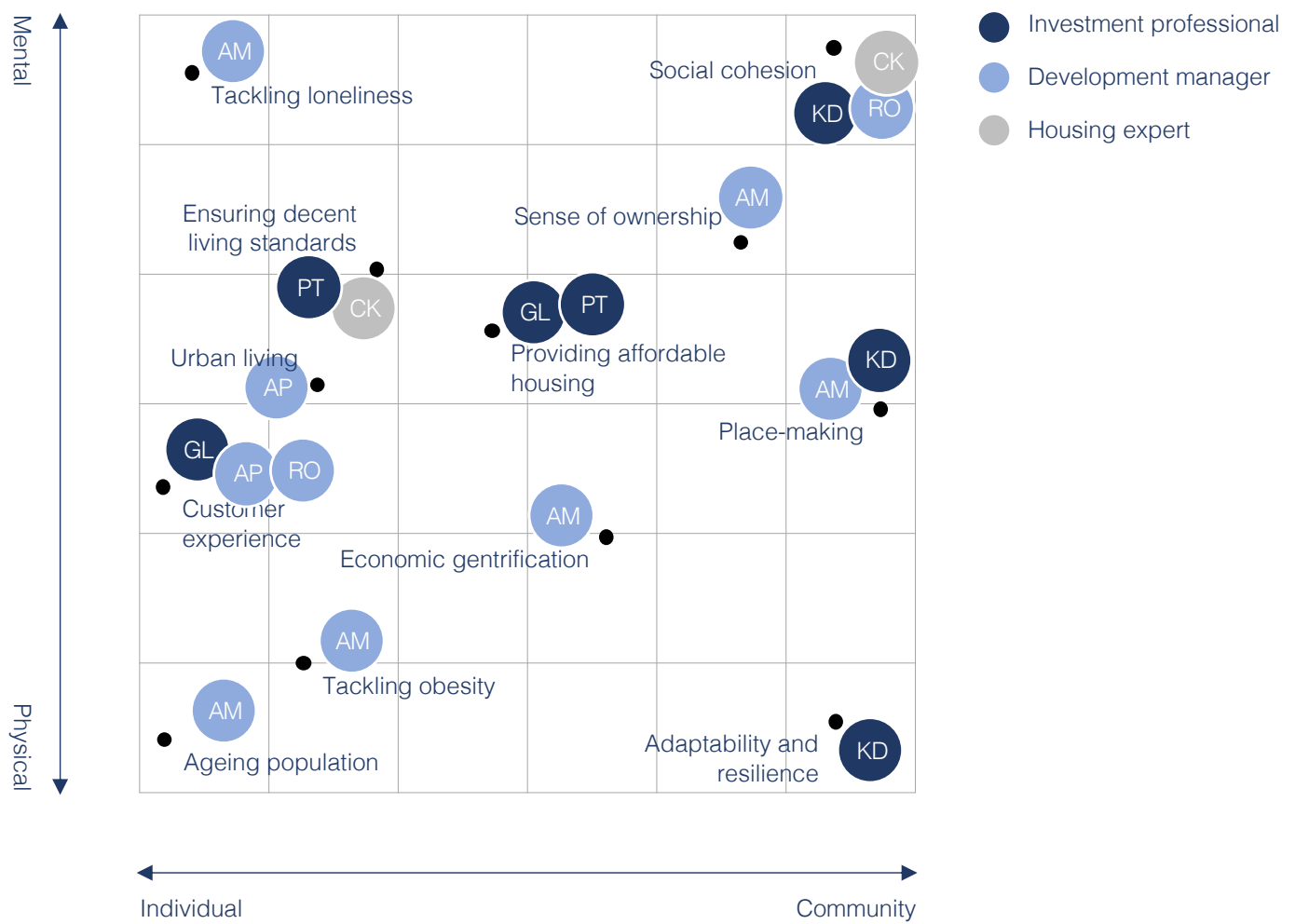


Fig. 17: What are the main components of social value?

Tools and frameworks commonly used

A myriad of frameworks, tools and methodologies have been released in the last few years, and interviewees were asked about the tools they use or refer to most frequently.

Well-established measurement tools and reporting frameworks such as DGNB, MSCI, ESG Screener were identified by some of the respondents as key tools they refer to. When it comes to social value measurement, these tools mainly target measurement of physical health and well-being, focusing on the quality of the building and its design and assessing how that affects the health of the occupiers. Socioeconomic factors or the broader impacts and responsibilities of the real estate industry (for example the effects of the building industry on communities and the responsibility to develop inclusively) are covered to a limited extent in the above frameworks. This highlights the growing need and related efforts to develop these industry frameworks and tools to include more social metrics. It also means that many companies are working with bespoke tools.

Most of the interviewees reported using custom-made frameworks developed internally. In these cases, the process included hiring external consultants, conducting thematic interviews and workshops with stakeholder groups, and later also more extensive quantitative interviews with individual stakeholders. Main aim in most of the cases was to develop a framework to assess the physical product and services offered by the housing provider, including ways to measure the experiences of residents. One interviewee on the investor side reported using a government-developed framework containing an in-depth list of indicators to measure livability, safety, well-being, etc.

A commonly described challenge with using existing frameworks is that the bulk of them are not created to monitor impact performance or drive real value creation, but instead are set up as checklists, reducing reporting to a mere 'box-ticking activity'. Moreover, some interviewees pointed to the fact that a lot of frameworks assess plans and intentions rather than evaluate actual outcomes and impact, and that comparing options at the design stage is not really included in any measurement tool.

“Existing frameworks do not really give any structure to your thinking around sustainability topics. They are more a tool allowing investors in the years to check a bunch of boxes to say that they're sustainable.”

Gustaf Lilliehöök

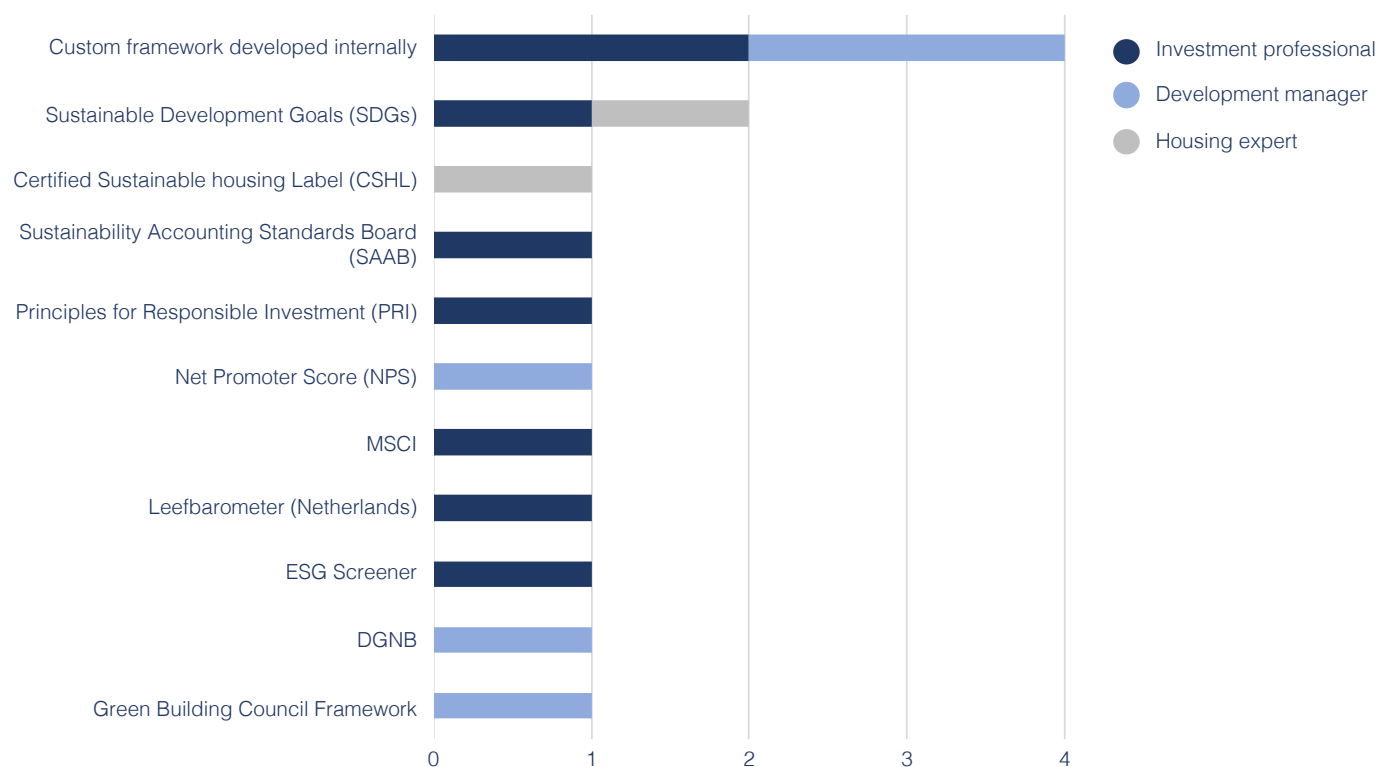


Fig. 18: What measurement tools do you refer to?

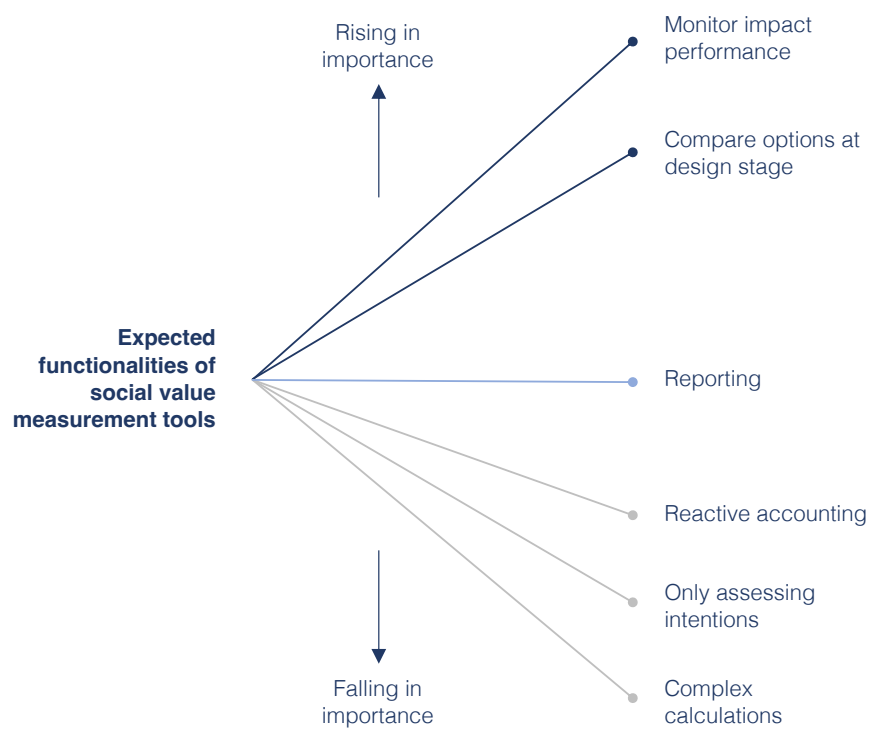


Fig. 19: Demands and expectations towards measurement tools are shifting

Indicators and metrics used to measure social value

Following up on their views about existing framework, interviewees were asked to provide input on what metrics they use in order to measure social value.

The split between 'physical vs experience' is present in interviewees' answers here as well, with the majority of responses focusing on metrics such as tenant satisfaction, affordability, place making, community engagement, access to jobs and education. Physical comfort appears to be less in focus, and as one of the interviewees noted, "at this point indoor climate and well-being should be considered minimum requirements".



Feeling of ownership © Places for People

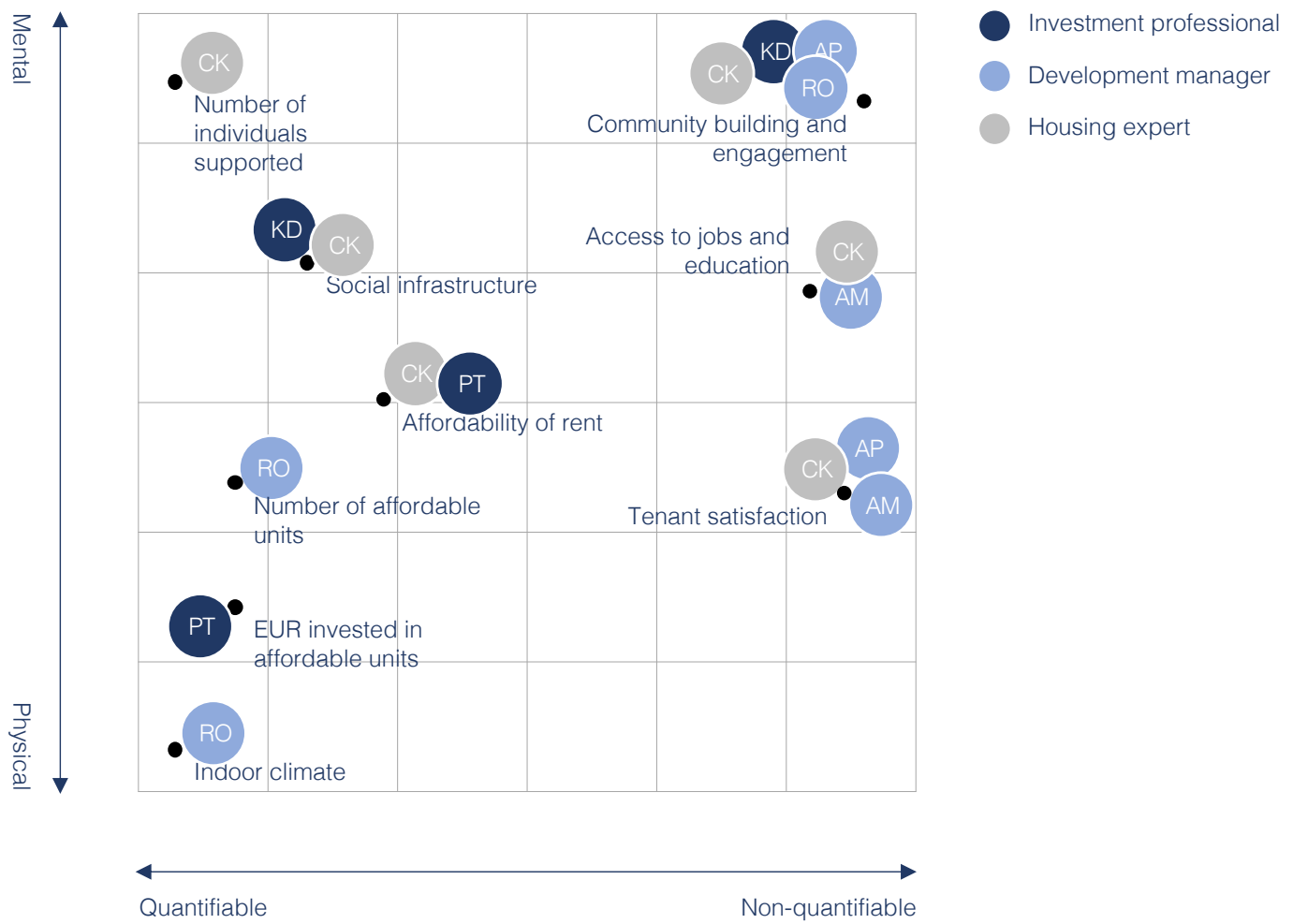


Fig. 20: What do you measure in relation to social value?

How results of social value measurement are used

Interviewees were asked about how they manage the results from the social value assessments they carry out. Unsurprisingly, majority of interviewees talked about reporting and communicating results to stakeholders. For developers, that could be institutional investors, and for institutional investors, that could be the people whose money they manage. What was interesting to see is that every respondent touched upon the topic of using measurement results to understand impact performance and review and set targets in an effort to improve that. If we look to the world of environmental sustainability, the carbon emissions reduction movement grew exponentially in the past years largely due to the rigorous focus on target setting, measurement and compliance. This signals that a similar positive tendency might be emerging within the social value field.

“Measurement results play a big role in our target setting for impact investments, especially in the field of affordable housing.”

Peter van den Tol

“I think the last thing you want to do is communicate your ‘fluffy things’ (i.e. “fluffy” metrics and KPIs) out because then you are completely vulnerable to criticism, greenwashing accusations, lawsuits even.”

Anna-Mette Monnelly

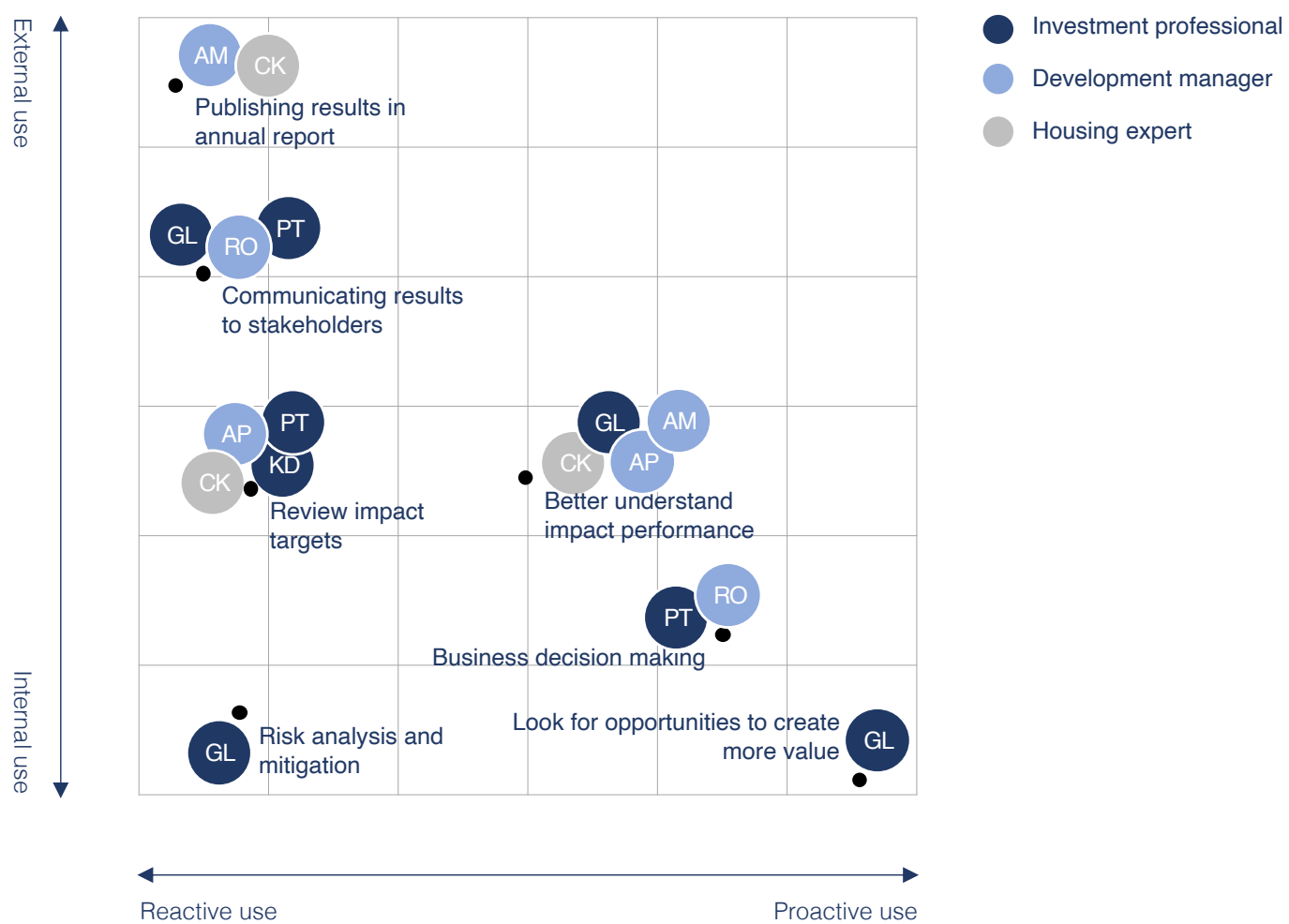


Fig. 21: What do you do with the results of social value measurement?

The role of quantification and monetization

Methodologies to evaluate social value include both qualitative and quantitative approaches. This is because social value naturally includes improvements that go beyond or are separate from economic exchanges (Hall, 2015). The impact of job creation does not only include economic value from increased income, but also encompasses significant improvements in psychological wellness. As mentioned in the theoretical research, there has been a growing demand to try and quantify social value. Existing methods often exclude or discount social value and there's varying success and limited support from organizations in implementing these methods, as there are divergent views on how exactly social value should be quantified. The ambition is to create a holistic evaluation of value as a whole, encompassing economic, social and environmental impacts, and expressing this evaluation in financial terms.

The notion that some sort of quantification is necessary was expressed across all stakeholder types. Interviewees, especially from the investor perspective, believe that quantifying social value will influence financial returns.

The view that monetizing social value in order to best integrate it with cost/benefit analysis was also shared by the majority of interviewees. Showing that focusing on social value would not have a negative impact on financial returns, and, on the contrary, would actually increase them, is a necessary step to make social value measurement and quantification mainstream, according to one of the investment managers interviewed. One of the development managers interviewed, while agreeing that monetizing social value is important for investors, talked about the fact that social value can "probably never be measured accurately and sufficiently", and focus should instead be put on how to start up an industry-wide approach to what exactly needs to be quantified, how, and if the industry should even attempt to quantify social value at all.

According to Hall (2015), there's a positive correlation between the quantification of social value and financial output and market performance. Consequently, out of all stakeholders, one could expect investors would be the most interested in social value quantification. It is interesting to note that while two of the investment professionals interviewed had an aligned opinion of the necessity of monetizing social value, the third investment professional interviewed had an opposing view. According to him, trying to monetize social value is dangerous as it can give a false sense of certainty. Applying financial jargon and overcomplicated calculation metrics means companies

“What you are doing is force fitting numbers onto something; And those numbers do not really mean that much. It comes to the actual outcomes of people leading happier lives or of having better access to housing or a safer environment or whatever it might be. That's why I think there's a great danger when people apply these frameworks and think that therefore they're achieving impact.”

Gustaf Lilliehöök

are focusing on the wrong thing and thus they are at risk of missing the point of the key issues they are trying to solve.

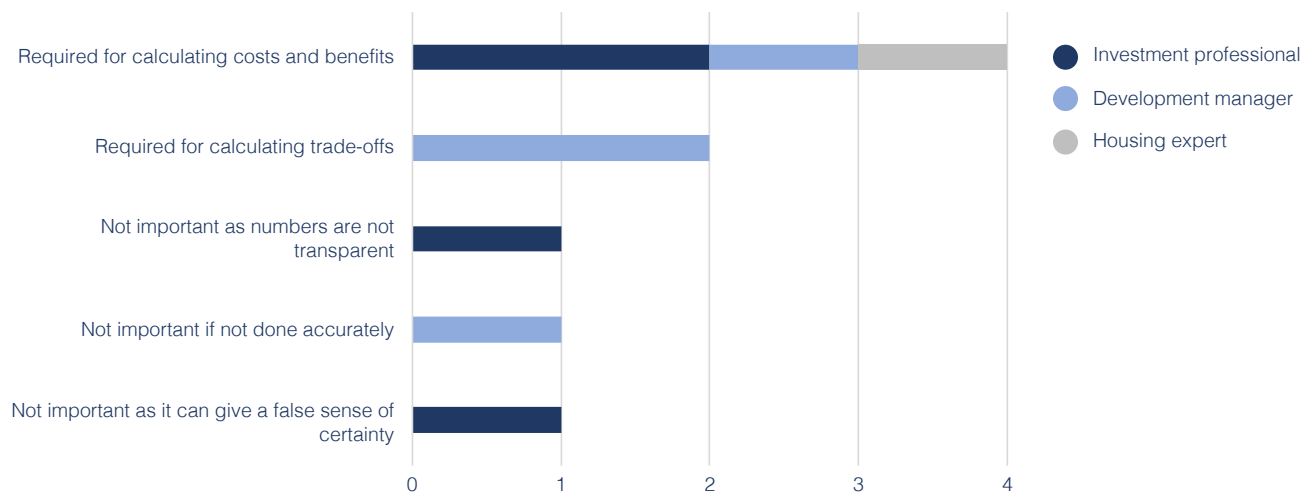


Fig. 22: What is the role of expressing social value in financial terms

“Measuring social value is very important, although very often social value is not directly expressed in the financials of an organization because social value is like what I call “soft solvent”. What is the value of creating a job for someone? I mean, we cannot put that in our balance sheet.”

Corne Koppelaar

A development manager talked about a ‘holistic sustainability package’ that can be quantified, and then capitalized in the exit period of an investment. This sustainability package, according to the development manager, can consist of social improvements, environmental sustainability and economic qualities (such as adaptability and robustness). Some of these three dimensions are less quantifiable than others, but all three of them are an inseparable part of the “holistic sustainability package”.

To summarize, quantification is seen by most interviewees as a useful tool for measuring and calculating the magnitude of social impact. Some of the interviewees agree that putting a monetary value to social value will help integrate the social value practice as a core component in business strategy, accounting and performance management.

Interviewees expressed their belief that monetization needs to be done well and systematically in order to have validity. Bespoke measurement approaches and differing monetization models lead to different valuations depending on the types of assumptions and the types of social outcomes used. Industry-wide consistency and coherency is needed.

Those that considered monetization as unimportant all shared a similar set of reasoning – quantification is complex, can create a misleading sense of achieving impact, and it is rarely done properly. Delivering social impact is an abstract and complicated process that requires a long-term holistic approach. Engaging resources and focus on quantification can diminish the scope of social value targets to only those that can be expressed in

monetary terms. Interviewees sharing this view agree that defining and reporting on metrics that have real-world impact (e.g. number of affordable housing units, enhanced well-being, etc.) is more important.

First priorities to drive improvement of social value creation

Participating stakeholders were asked where they see the social value practice in the future. All six of them expressed similar opinions on the growing importance of social value measurement and they all agreed that social value creation and measurement will only become more and more common. As a reasoning for these statements, most of them pointed to the emerging global megatrends such as urban living, income classes division, loneliness, obesity, etc.

For example, one investor talked about how one of these emerging megatrends, the affordability crisis, will only grow in social and political importance in the broader discourse. This will consequently motivate governments across the globe to focus on housing policies, driving more legislation and regulations in the social value practice. He also talked about how building for livability and incorporating considerations such as indoor climate into the building design will essentially become a necessity following increasingly hot summers and other extremes as a result of climate change.

The housing expert stated that he believes a main driver for the growth in social value importance is that ESG reporting as a whole will be considered by more and more organizations worldwide who want to access cheaper funding.

A development manager pointed out that in the past three years, massive developments in carbon thinking, efficiency, evaluation measurement and legislation have been observed. He used this as an example to illustrate how trends can grow quickly. He believes that going forward, the social value practice will become more relevant, mainly due to the fact that it will become more standardized and consistent across the industry. Notably two of the investment professionals interviewed strongly share his view on social value becoming standardized. The investors say that regulatory requirements will be a main driver in the standardization of the social value practice.

Another development manager stated that the social value measurement practice will improve in the coming few years, becoming more comprehensive and quantifiable. He explained that both investors and project developers will start focusing on user experience, the customer

“I am a firm believer that going forward, the social value practice will be more relevant, more widely used and more standardised. All these underlying issues we are trying to solve are not going anywhere”

Aleksa Pesic

journey and how they can improve their housing offering and retain current customers and attract new ones. A sharp shift from existing industry business models where companies build to sell looking at profits only, this customer-centric approach could drive big improvements in the social value practice as market players fight for customer loyalty.

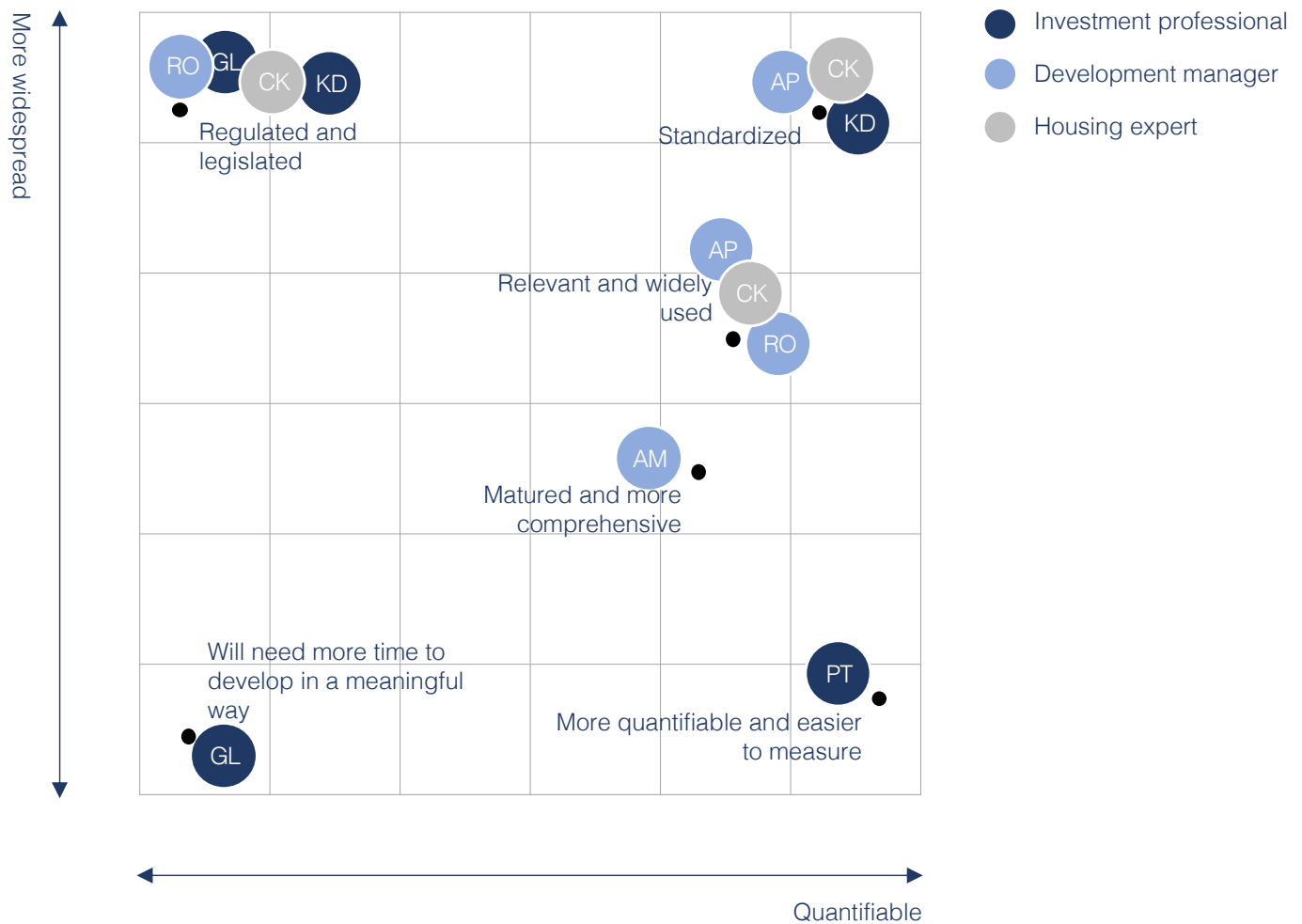


Fig. 23: What do you think the social value practice will look like in a five years' time?

One investor expressed doubt about whether 5 years would be enough to see meaningful improvement in the social value practice. He also made a comparison with carbon legislation and explained that social value cannot be reduced to a number which you can target on a yearly basis (referenced here are the CREEM annual targets). In any case, it is increasingly important to report the right to the facilitators of capital. The housing expert shared this statement, point out that it will take decades for the industry to get to a level where social value is measured, accounted for and quantified in a

sophisticated and meaningful way. However, he accentuates the importance of reporting on the right indicators already as of now to the facilitators of capital.

Discussing the first priorities in order to drive the improvement of the social value practice, most interviewees agreed that better understanding the social value business case is where organizations need to begin. Another popular statement was the need for clear social value definition and a more standardized approach to measurement.

Another popular answer among all interviewees was the suggestion that institutional investors such as pension funds hold the power to drive massive improvement of the social value practice if they start making allocations based on social impact as well, and not only based on financial metrics. This will create a clear and prompt response by developers in terms of what they produce and how they use it.

Some interviewees, notably the investment professionals, talked about the important role of organizational leadership and conviction as a powerful driver of social value creation.

- Investment professional
- Development manager
- Housing expert



Fig. 24: What are key steps to driving the improvement of the social value practice?

8.6 Summary of Industry perspectives

The stakeholder interviews revealed a number of points that need to be addressed to improve and progress social value creation.

There's a need for more external pressure. Both investment professionals and asset managers or developers talked about the enhanced need for stricter regulations and a unionized push to integrate social value in the built environment industry as a whole, and especially in the residential sector. This pressure, according to interviewees, should come from governments, authorities, but also private and public providers of capital.

A standardized approach and industry alignment could be helpful. The need for a standardized definition and process when it comes to social value was highlighted by most interviewees, most notably by the investment professionals. Their perspective is highly influenced by reporting and auditing considerations. Standardization can be helpful, but it is important to do that without hindering the opportunity for flexibility and context-based considerations for different projects.

Along with the need for standardization, a call for industry-wide alignment was made. Meaningful reporting, not box ticking. All interviewees spoke about the dangers of turning reporting into a “box-ticking” exercise. Reporting oftentimes incentivises investors to mostly focus on simplified, easily measurable metrics that rarely tell the full story and may even promote an inaccurate one. Interviewees suggested the focus should be on outcomes instead of outputs.

Only do quantification and monetization if it makes sense. All interviewees spoke about the positive aspects of quantifying social value. Many of them, however, warned about the dangers of focusing too much on monetisation and only selecting quantifiable performance indicators or getting tangled in overcomplicated calculations. Calculating financial value should be done only when there are true cost savings or monetary improvements.

8.7 Gaps, challenges and opportunities

The interviews revealed many useful insights about the integration of social value in the built environment, but a major takeaway is that, while many companies are motivated to contribute to social value creation, a myriad of challenges exists that obstruct putting intentions into place. Consequently,

this blocks the way forward for social value to become a central consideration for the industry at large.

Although there is a general knowledge of and genuine interest to create social value, gaps exist within the social value creation process. Below, a schematic representation shows the social value creation chain, highlighting the weak points that were identified in the empirical research.



Fig. 25: Gaps

Initiation gap

A major obstacle in the initiation phase is the fact that there is a lack of clear and consistent definition of social value, as well as the factors that contribute to its creation. Achieving true impact in terms of social value requires a broader range of elements to be considered, outside of the usual indoor climate and physical well-being. This limited understanding hinders the full potential of social value, as it considers only a handful of impact themes. Further considerations include mental dimensions such as community, safety, inclusion, financial security, etc., all of which can be addressed through the design of buildings and the way that they are managed and operated. As evidenced in the theoretical part (UKGBC, 2022), it is important to remember that social value is contextual, and so is its definition.

Further, crucial stakeholders, such as local communities or local businesses, are rarely engaged in the earlier stages of project developments. At the same time, there's a general lack of knowledge of how projects and real estate assets influence the quality of life of tenants, local communities and others.

Not having a good contextual overview of the social impact themes suitable to a project, as well as not engaging the wider spectrum of stakeholders in the development process are the two main barriers to defining goals and setting an action plan, as described in figure 25.

An opportunity to address the “Initiation” gap is to provide companies with a guidance on how to gather contextual knowledge, how to involve stakeholders meaningfully, and how to define and set the right goals and actions to achieve true impact.

Measurement gap

The gaps in the initiation and measurement steps of social value creation are clearly linked. It is difficult to measure something that has not been defined. However, even after acquiring a better understanding of social value and defining clear goals, organisations oftentimes still struggle with properly measuring their impact and contribution.

As highlighted in the interviews, companies often overlook more intangible, long-term impact themes such as social inclusion, prosperity and mental health, as they are too focused on immediate, reporting-friendly outcomes such as number of affordable units. When approaching the monetization and quantification aspects, many organisations get entangled in complex calculations for the sake of reporting a certain number. Lack of clear measurement approaches prevents the built environment industry at large to overcome the “reporting and disclosure mindset”, where results are measured for reporting purposes only, and little action is taken to assess results and consequently change, update or shift impact actions or themes.

Another obstacle in the measurement of social value addressed during the interviews was the fact that standardized data related to social performance on a project level is a challenge, as the data varies greatly by building type, context, etc.

An opportunity to address the challenge with measuring social value is providing the industry with a standardized framework on available ways to measure impact, but also making it easier for companies to review and improve performance.



Affordable housing development in the Netherlands © MN



Mapping exercise

9.1 Opportunities to address the gaps

Examining the landscape of existing frameworks can be useful in helping navigate these two parts of the process where unknowns still exist (Table 6).

To address the “Initiation” gap in the social value creation process, a number of frameworks and tools will be analyzed for clues on how to approach this step of the process will be presented. This will be verified with highlights from the theoretical research.

To address the “Measurement” gap in the process, all selected frameworks, tools, certifications, etc. will be mapped against a set of criteria derived from the theoretical research. The result of the mapping exercise will be a checklist with key KPIs and ways to measure them. This checklist can aid organisations in approaching the “Measurement” gap of the social value creation process.

Fig. 26: The frameworks and tools that were analysed are produced by organizations that have pioneered sustainable development.



Table 6. Widely used certification schemes, frameworks and measurement tools that have been analysed to address the gaps in the process.

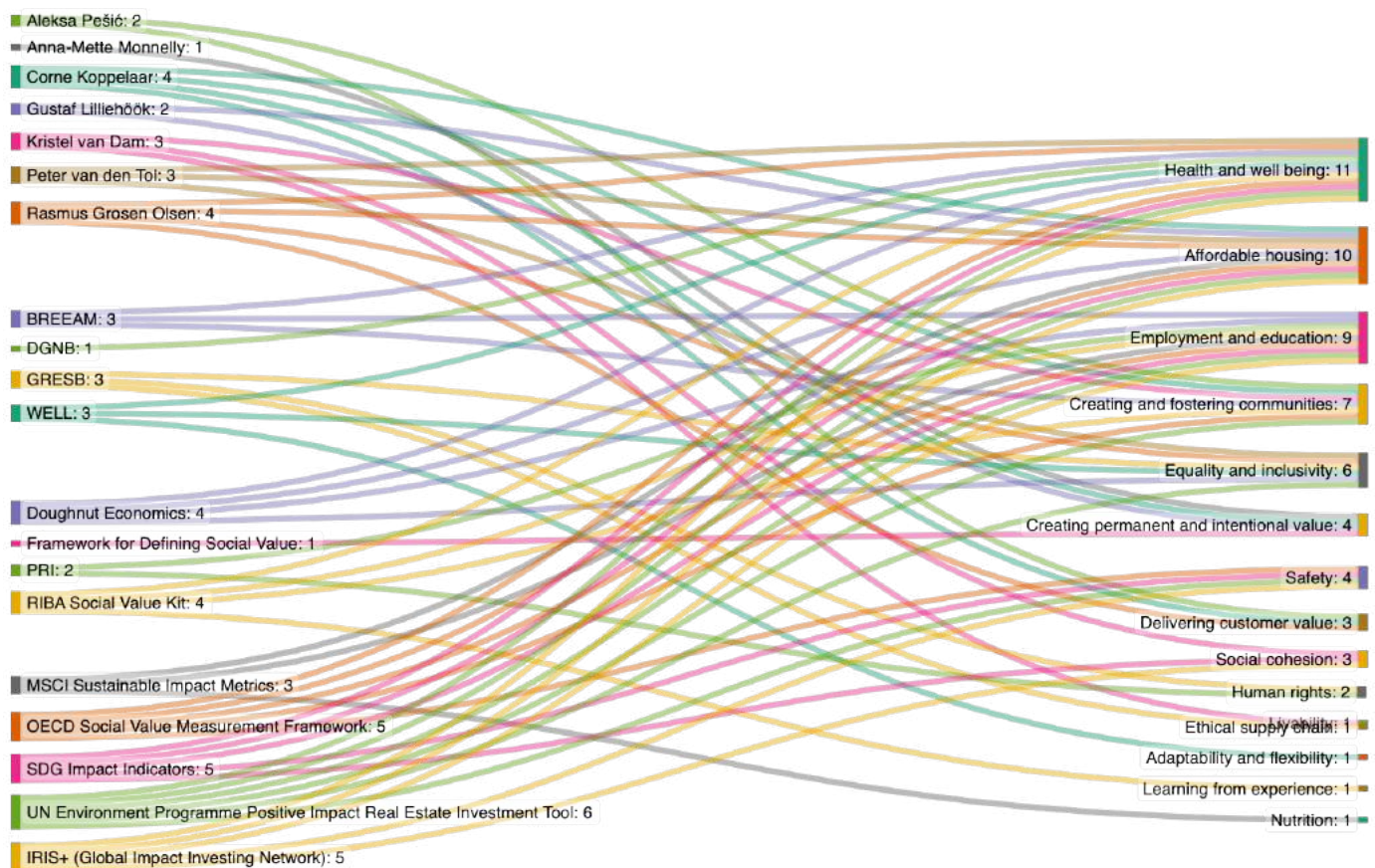
	Description	Strategy Planning	Target Setting	Measurement	Reporting
Certifications	BREEAM	X	V	V	V
	DGNB	X	V	V	V
	GRESB	V	V	V	V
	WELL Standard	X	V	X	V
Frameworks	Doughnut Economics	V	V	X	X
	IHRB	V	V	X	X
	UKGBC Framework for Defining Social Value	V	V	X	X
	PRI	V	X	X	X
	RIBA Social Value Kit	V	V	X	X
	OECD Measuring Well-being Framework	V	V	X	X
	IMP Impact Management Project	V	X	X	X
Measurement Tools	IRIS+ (Global Impact Investing Network)	X	V	V	V
	MSCI Sustainable Impact Metrics	X	V	V	V
	OECD Social Value Measurement Framework	V	V	V	X
	SDG Impact Indicators	V	V	V	V
	UN Environment Programme Positive Impact Real Estate Investment Tool	X	V	V	X

9.2 Mapping Exercise

Two sets of mapping analyses were performed. The first one aims to provide insights into what factors go into the definition of social value, while the second one aims to produce a set of measurement themes. These two mapping analyses are done to pursue a degree of standardization in the social value definition and measurement process.

Firstly, the selected frameworks, tools and certification schemes (table X) were mapped alongside interview perspectives to reveal the main components of social value definition.

Fig. 27. Key components of the definition of social value based on mapping industry perspectives, certification schemes, frameworks and measurement tools.



Secondly, based on the theoretical research, a set of social value key performance indicators was derived. This set of KPIs was used to evaluate the selected frameworks (table 6) by mapping measurement approaches per KPI, as well as by looking for new, original input on alternative measurement indicators. These indicators cover both physical and mental categories. While the KPIs come from the theoretical research, they cannot be considered exhaustive, so interesting new additions to the indicators list were derived during the mapping exercise. Appendix C contains a detailed interactive version of table 7, where the referenced measurement techniques for each KPI are linked to website addresses.

Table 7. The Mapping Exercise, where selected certifications, frameworks, and measurement tools are compared to discover common measurement approaches for a set of social value KPIs.

Mapped impact themes	Indicator coverage rate	Covered in theory	Covered in tools, etc
1 Accessibility and mobility	47%	Yes	6 out of 14
2 Adaptability	33%	Yes	4 out of 14
3 Affordable housing	40%	Yes	5 out of 14
4 Behavioural change	20%	No	3 out of 14
5 Profitability	33%	Yes	4 out of 14
6 Character	20%	Yes	2 out of 14
7 Community	40%	Yes	5 out of 14
8 Environmental sustainability	67%	Yes	9 out of 14
9 Health and well-being	93%	Yes	13 out of 14
10 E, D & I	53%	Yes	7 out of 14
11 Jobs and education	53%	Yes	7 out of 14
12 Participation	33%	Yes	4 out of 14
13 Quality of spaces	40%	Yes	5 out of 14
14 Resilience	33%	Yes	4 out of 14
15 Safety	40%	No	6 out of 14
16 Nutrition	33%	No	5 out of 14
17 Work-life balance	7%	No	1 out of 14
18 Monetization guidance	13%	Yes	1 out of 14



Outdoor spaces © Places for people

Output and recommendations

10.1 Addressing the Initiation gap

As mentioned, defining objectives is one of the most crucial elements in social value creation. It is imperative that social goals and objectives are clearly defined and align the company's plans and aspirations (e.g., financial return) with the values of stakeholders. The following few sections present a roadmap for defining social value.

Understand social value

Existing frameworks can provide overarching perspectives to help organisations gain a better understanding of social value and thus, help define objectives along with corresponding targets.

UN's Sustainable Development Goals (SDGs) are a good reference point for defining forecasted development contribution of built environment projects. Each of the 17 goals typically has several sub-goals, and each sub-goal has a few indicators used to measure progress. Many of the goals are a continuation of existing international agreements on human rights, biodiversity, climate, etc.

The OECD's Well-being Framework has a sharper focus on social impact dimensions and consists of 11 impact themes to measure social progress against.

The Institute for Human Rights and Business (IHRB) has published a "Framework for Dignity in the Built Environment". This framework's purpose is to help guide relevant stakeholders in their decision-making process throughout the built environment lifecycle with the main focus of protecting human rights and maximizing social outcomes. The framework breaks apart the built environment into six stages, at each of which accountability, participation, non-discrimination and transparency should be observed. For each stage, the IHRB has provided guidelines for action.

The IMP (Impact Management Project) have set up a framework to understand and evaluate impact performance, which they call "a shared logic for managing impacts on people and the planet". The foundations of this framework are five dimensions of impact: What (outcomes an organization contributes to), Who (stakeholders experiencing the outcome), How Much (number of stakeholders experiencing the outcome), Contribution (whether the organization's actions resulted in outcomes that were better than what would have occurred otherwise), and finally Risk (likelihood that impact would be different than expected).

The IMP framework allows investors to use these 5 dimensions to set specific questions or considerations to be integrated into the due diligence process, for example. Several industry players such as Nuveen and CBRE use the IMP as a foundation for creating their own impact goals.

A series of guides on social value in the built environment industry were published by the UKGBC (UK Green Building Council). Among the main topics of these publications are how to integrate social value in the project cycle, how to define social value, an analysis of available measurement approaches, and a data set of useful resources.

Understand local context and social needs

As evidenced by the UK Green Building Council (2022), built projects are closely linked to the context in which they are positioned. How to define, create and deliver social impact will vary massively depending on the local context and its needs, but also depending on the stage of asset lifecycle, the expectations of users and relevant stakeholders, as well as the priorities of local authorities. Consequently, the same intervention might have different outcomes in two different contexts. The impact of creating new jobs and education opportunities in a disadvantaged area might be much more long-lasting and meaningful than the impact of offering these opportunities in an area where there's not an enhanced need for those. Therefore, a context-based lens is necessary when defining social value definitions and goals.

To make sure local context is properly integrated into the process, companies should refer to regional and local development plans. Usually, these plans contain specific priorities and action plans relevant to real estate, for example the need for affordable housing. Some cities are collaborating to develop plans for more inclusive, equitable and sustainable living modes, for example the C40 initiative. Obviously, the extent to which local plans contain social value considerations will vary greatly by city, region or country, so these development plans should not be considered as exhaustive, but as a starting point to understand local needs.

Engage with stakeholders

An understanding of stakeholders' needs, aspirations and priorities is needed in order to define meaningful social value goals. This is why engaging stakeholders as part of the planning and management process is important and should be done beyond the typically required involvement in the later stages. Engaging residents and locals as early as possible helps

understand their needs, as well as opens the door for future co-creation and working in partnerships.

A research paper examining the role of stakeholders in affordable housing projects in South Africa highlights the need for an early-on stakeholder inclusion to ensure optimal performance of delivery of housing projects (Mohlasedi and Nkado, 1997). The supply chain in the real estate sector is not always taken into consideration, even though it is a big area for social impact. This is evidenced by the United Kingdom's Social Value Act 2012, where social value aspects are integrated into procurement decisions, influencing the supply chain (The Social Value Act: 2021 Changes, 2021).



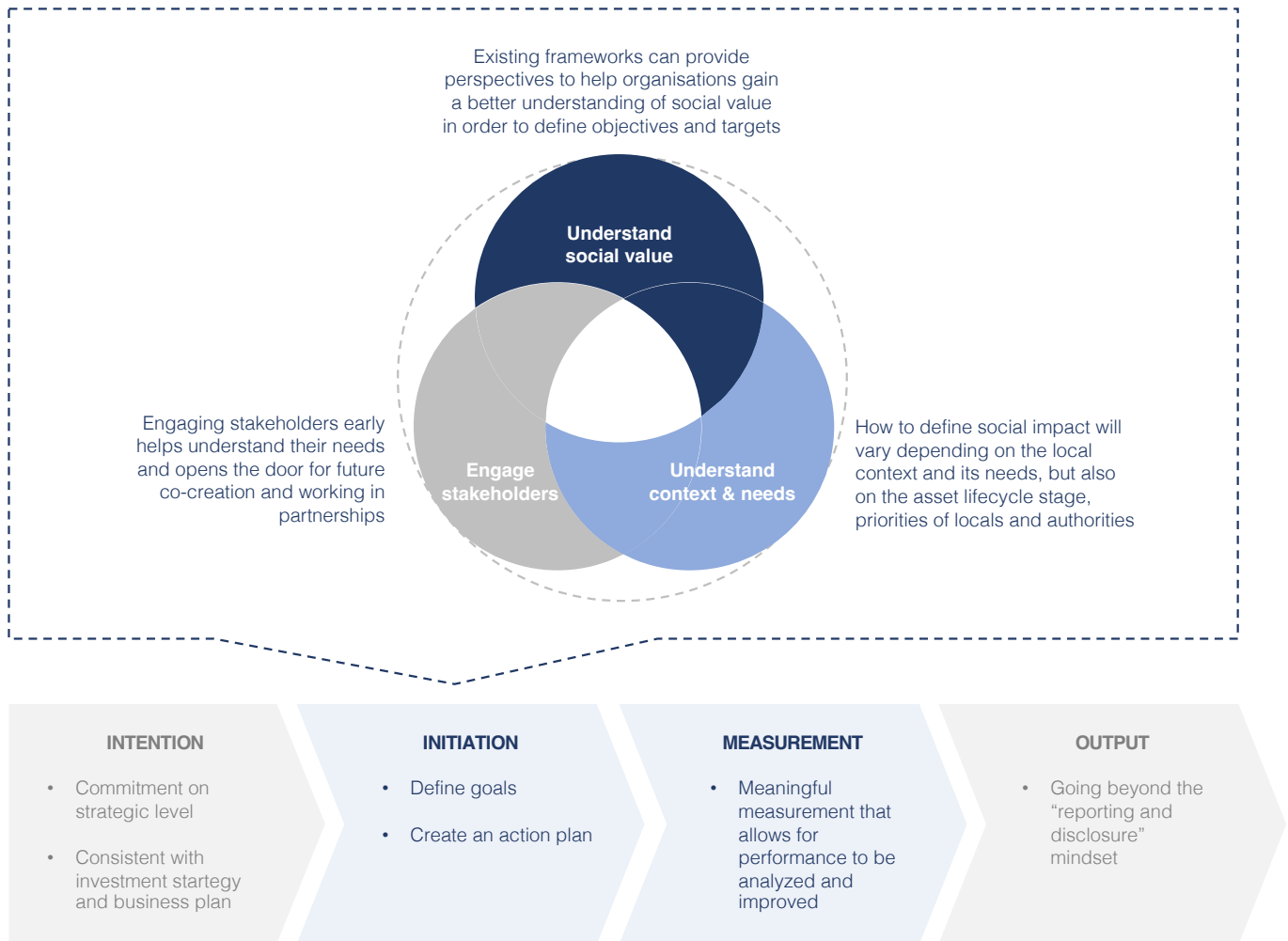


Fig. 28: Social value definition roadmap, which is targeted at addressing the "Initiation" gap.

Lastly, as an additional resource to aid organization in the "Initiation" phase, a comparison was carried out, where key components of the definition of social value were analyzed (Chapter 9, Fig. 27). Inputs came from the interviewees, as well as the definitions of social value that the selected frameworks and tools use. The purpose of this comparison is to give companies facing challenges with defining social value a summary of what crucial elements they need to address.

Based on this analysis, the main components that should be accounted for when defining social value are the following:

- Health and well-being (11 mentions)
- Affordable housing (10 mentions)
- Employment and education (9 mentions)
- Creating and fostering communities (7 mentions)
- Equality and inclusivity (6 mentions)

- Creating permanent and intentional value (4 mentions)
- Safety (4 mentions)
- Delivering customer value (3 mentions)
- Social cohesion (3 mentions)
- Human rights (2 mentions)
- Ethical supply chain (1 mention)
- Adaptability and flexibility (1 mention)
- Learning from experience (1 mention)
- Nutrition (1 mention)

10.2 Addressing the Measurement gap

With no clear industry guidelines on measurement beyond the ordinary reporting and disclosure activities, many organisations are struggling to adequately assess the impact of their contribution. To aid in this, the previous chapter analysed 14 acclaimed frameworks and measurement tools in order to identify the main impact themes that social value should be measured against. The resulting themes are:

- Accessibility and mobility (47% coverage in theory, frameworks and tools)
- Adaptability (33% coverage in theory, frameworks and tools)
- Affordable housing (40% coverage in theory, frameworks and tools)
- Behavioural change (20% coverage in theory, frameworks and tools)
- Profitability (33% coverage in theory, frameworks and tools)
- Character (20% coverage in theory, frameworks and tools)
- Community (40% coverage in theory, frameworks and tools)
- Environmental sustainability (57% coverage in theory, frameworks and tools)
- Health and well-being (93% coverage in theory, frameworks and tools)
- E, D & I (53% coverage in theory, frameworks and tools)
- Jobs and education (53% coverage in theory, frameworks and tools)
- Participation (33% coverage in theory, frameworks and tools)
- Quality of spaces (40 % coverage in theory, frameworks and tools)
- Resilience (33% coverage in theory, frameworks and tools)
- Safety (40% coverage in theory, frameworks and tools)
- Nutrition (33% coverage in theory, frameworks and tools)
- Work-life balance (7% coverage in theory, frameworks and tools)
- Monetization guidance (13% coverage in theory, frameworks and tools)

10.3 Social value checklist

The resulting 18 impact themes of the mapping exercise (Chapter 9, table 7) are operationalized into the Social Value Checklist – a tool intended to help teams navigate the complex world of social value measurement. It builds upon a combination of data from theory, interviews, certification schemes, frameworks and measurement tools.

The Social Value Checklist (found in Appendix E) is a MVP (minimal viable product) guideline that covers all key areas that the research has brought

about. The checklist has been created to raise considerations and discussions around ways in which social value can be integrated in and created as a result of a real estate development or investment. It should be used as inspiration and support when selecting targets and ways to measure. The checklist can be used throughout the entire planning, design, construction and delivery phases, and should engage as many relevant stakeholders as possible in the dialogue. It is critical to start using the checklist as early as possible in the process, preferably pre-planning phase.

Who is this checklist intended for?

The Social Value Checklist is primarily designed to serve real estate developers, investors and contractors; however, a plethora of other stakeholder can make use of it. Below the main intended uses are described in detail.

- Real estate investor/developer – to learn about and choose social value goals, as well as decide on measurement approaches;
- Project team – to start developing the project with the checklist in mind, allowing the team to consider issues of social value at the different project stages;
- Community, other stakeholders – to use the checklist as a guide helping them to consider what their neighborhood needs before working with the city officials or a developer, e.g. creating a manifesto of wishes to send to developers;
- Municipality and government – to use as a guide helping them to list requirements while preparing for a request for proposal (RFP).

How to use this checklist?

The checklist contains main impact themes that have been addressed in social value theory, frameworks and certifications, and that have also been confirmed by leading industry professionals. As the measurement of social value was identified as a main obstacle to proper social value creation, the checklist refers to a list of available measurement approaches as well as KPIs for each of the impact themes. The user of the checklist should identify the most suitable KPIs and measurement techniques while taking the project context and other aspects in consideration. This way, the checklist helps the user cover main social value criteria in a reliable and meaningful way. The checklist is designed in a way that it allows to be expanded as much as

necessary within each of the impact themes - for example, users can add as many KPIs per impact theme as needed, and the same goes for alternative measurement techniques outside of the ones listed. Again, the checklist is a tool intended to inspire, not restrict.

The first step is to read through the checklist and identify which impact themes are relevant to the project, and of those, highlight the ones of most interest. The “Guidance” column contains useful questions to help you understand the main aspects of each theme. The next step is to research available targets and measurement techniques, which is a crucial step for goal/KPI setting. Selected KPIs and Measurement methods should be inserted in the respective columns. The “Quantifiable” column filters out the indicators that the team decides will not be quantified. For the rest of the indicators that are deemed quantifiable by the project team, a guidance on monetization is included at the bottom of the table. The “Progress” column can be developed further, as its purpose is to allow the user to keep track of each KPI, periodically revisit measurement approaches as well as actions planned or taken. New opportunities, strategies and relationships arise over time, so staying effective requires going back and reviewing and/or updating elements of the checklist.

Fig. 29: Social value impact themes that constitute the checklist. Themes have been identified based on theoretical and empirical evidence. The checklist operationalizes these themes into action points.

Physical		Accessibility and mobility	Will your project be equally accessible to all people of different abilities?
		Adaptability	Will your project's design be flexible, and will it create potential for conversion, thus reducing lifecycle costs and minimising the risk of vacancy?
		Environmental sustainability	Will your project promote protection of ecosystems, energy efficiency, innovative building practices, waste and pollution minimisation, etc?
		Health and well-being	Will your project improve physical health, safety and mental well-being for everyone involved, including users, local community, project team, supply chain, etc?
	☆☆	Quality of spaces	Will your project bring spaces and routes that are designed well, and will they be attractive, safe, uncluttered and work effectively for all in society?
		Nutrition	Will your project promote health improvement by influencing dietary behaviours and by increasing the marketing and availability of healthy foods?
Mental		Affordable housing	Will your project provide or preserve housing units that are considered affordable in the local context?
		Behavioural change	Will your project aim to promote solutions that encourage people to make the most sustainable choice?
		Character	Will your project respond to and reinforce locally distinctive patterns of development and culture, including preserving historical buildings and monuments
		Community	Will your project commit to strengthen communities and engage with them throughout the project lifecycle?
		Inclusivity, diversity and equality	Will your project aim to be inclusive, both in the project team and end users, as well as all other stakeholders involved?
		Jobs and education	Will your project support local job creation, education, training and/or businesses and products?
		Participation	Will you project allow for activities that promote active participation and involvement of users and stakeholders in decision making processes throughout the project lifecycle?
		Resilience	Will your project promote practices that mitigate risks, endure shocks and identify opportunities to adapt and thrive?
		Safety	Will your project aim to be inclusive, both in the project team and end users, as well as all other stakeholders involved?
		Work-life balance	Will your project ensure relevant stakeholders can find balance between the demands f work and those of personal fulfilment and happier life?
Additional		Guidance on monetization	Cost-Benefit Analysis
			SROI
		Tools for success	Do you have a feedback loop or another mechanism to stay engaged?



Conclusion

The social dimensions of sustainable development are gaining momentum across the real estate sector, and organisations are thinking into how the industry can contribute to social value creation. This means people and places will have to be put in the heart of developments and investments in the built environment. The Covid-19 pandemic opened up a variety of opportunities for the industry to reimagine its purpose and how it connects to local, place-based priorities and needs.

Industry leaders are also increasingly considering the role of real estate in tackling spatial and social inequalities.

This report argues that the profit-first mindset of the real estate industry – culminating in the financialisation of housing, has broken the link between social value creation and financial value creation. Under traditional practice, investment and development decisions are predominantly driven by a focus on maximising monetary returns on investment.

Economic activity of real estate has to be aligned with achieving the Sustainable Development Goals (SDGs) in order for the industry to keep its license to operate.

As evidenced in this research, social value does not have to come at the expense of financial profitability. The business case for social value, expressed in a more holistic approach to investment, can create opportunities for long-term worth and value of properties. To ensure this is the case, however, an industry-wide shift from the profit-oriented short-term gain mindset to a focus on long-term value is needed. This gives rise to questions related purpose and mission: What and who are development projects really for? ESG considerations and sustainable investing are becoming mainstream, meaning that investors are increasingly willing to incorporate environmental and social aspects into decision-making. Hence, this is good timing for the real estate sector to focus on social value creation – and to reap the benefits of contributing to solving wealth inequalities while staying competitive.

The most critical step for a focus on social value creation is to have a common approach on how to define it and measure it. Different techniques and methods exist, covering both qualitative and quantitative perspectives. However, the understanding and use of such tools is still in its early phase in the built environment industry – knowledge and skills need to be developed in order to achieve more consistent and meaningful results. By answering the two research sub-questions and the main research question, this research aims to provide knowledge, specific action points and practical tools for integrating social value.

SQ1: What fundamental aspects of the definition of social value are common across investors, managers and developers?

This research concludes that no one-size-fits-all approach exists when it comes to defining social value. Context is everything. The definition of social value will depend on the context-specific considerations, the nature of the development/asset, as well as local needs and priorities. Different frameworks and tools have varying focus and detail but can be used as guidance.

Defining social value should be done by combining several approaches: analyzing local context, considering expert knowledge (frameworks and tools), understanding local needs and engaging with stakeholders. Organisations require the right kind of leadership and skills in order to effectively combine these approaches to define social value. The output of this research in relation to this sub-question, namely the mapping of analysis and related recommendations, is a roadmap on defining social value. This roadmap accounts for the fundamental aspects of social value definition based on practical and theoretical perspectives.

SQ2: What key components of social value frameworks used by investors, managers and developers can be set as standards for social value measurement in the industry?

The mapping of existing frameworks, interview insights and theoretical findings revealed a number of impact themes, measurement methodologies, as well as KPI setting and quantification guidance. All of this is operationalized in the social value checklist, which can be used by practitioners as a roadmap on identifying, selecting, measuring, tracking and managing impact.

The hypothesis that translating often-ignored impacts into financial terms will put them into the spotlight has given rise of the quantification and monetization of social value. However, as costs are easier to assess than benefits, which are more qualitative, expressing social value in financial terms should be treated with caution. Just because there is a number does not mean that the evaluation is subjective, or that the calculations are infallible estimates. As mentioned in the interviews, financial quantification should only be done where relevant, and measurement should not be skewed by overcomplicated calculations that shift the focus from creating actual impact.

A key takeaway in relation to finding a balance between flexibility and standardization in measurement is that it was impossible to design a rigid set of one-size-fits-all and top-down indicators. No set of pre-specified indicators can measure impact in all situations. Striving for standardisation of metrics and measurement risks obscuring the need for good sense and professional judgement. This is why this research, instead of focusing on designing a rigid set of KPIs, proposes a tool (social value checklist) intended to help organisations get a holistic overview of impact themes, measurements and quantification. The checklist contains components that can be set as standards across the industry but remains flexible in the way it allows for context-specific implications to be considered.

RQ: How can social value measurement in the built environment be strengthened?

Social value measurement can be strengthened by:

- Effective leadership that targets intentional value creation and that understands the role the built environment plays in this process;
- A good understanding of local context, challenges, needs, priorities and opportunities for improvement;
- A context-based definition of social value and clear goals that link to local needs and that can be transformed into actionable steps;
- A standardized overview of impact themes and corresponding measurement techniques that can be tailored to specific contexts and needs, if needed;
- A process for continuous evaluation and tracking of results and outcomes which will set up organisations for successful delivery of social value

The roadmap for defining social value together with the social value checklist that this research has produced are the first steps to approaching a standardized process for the industry.

Organisations should take a principle-based approach to integrate social value into strategy, operations, performance monitoring and reporting.

Improving the role the built environment has in social value creation requires all market actors, including both public and private players, to take action

and embed social value components into decision-making and thus optimise value creation for the benefit of society as a whole.

11.1 Research limitations

Social value in the built environment is still an emerging trend, meaning that the research field had limited academic insights on the topic. Other limitations to the research include a relatively small group of interviewees. Ideally, several more companies would have been included in the research in order to represent a more diverse collection of perspectives (economic, geographic and cultural). However, selected interviewees were based on those that were available for interview within a short time frame of a few months.

This research's context is the European Union, where regulations and commitments related to sustainability are generally perceived to be stricter and more advanced than other parts of the world. Consequently, the business case for social value and other sustainable developments is more evident in the European Union, meaning that some key takeaways of this research related to the financial alignment of social value might not be as relevant for other markets.

11.2 Recommendations for future research

Several topics were identified that warrant future research:

- Levers to drive more external pressure from investors. Investors and the requirements they set have a key role in completing the transition to a more sustainable and long-term oriented mindset in the industry.
- Dealing with the fragmented nature of the built environment industry. Silos between actors in the built environment value chain result in a lack of alignment in decision-making processes and a missing shared-value approach across the life cycle of projects.
- Further research into the other two parts of the social value creation process. This report focused on the “Initiation” and “Measurement” gaps in the process described in figure 25 as a critical priority. However, more insights are needed on how good leadership can solve the first gap in the process – “Intention”, as well as how outcomes can be continuously improved in the “Output” gap.

11.3 Reflection

Position of research within Delft University of Technology

This research was conducted within the Management of the Built Environment master track at Delft University of Technology. The research was supported by two mentors – Gerard van Bortel and Peter Boelhouwer, both of which specialize in Housing management and economics.

Throughout my education at MBE and through various extracurricular activities, I developed a strong interest in sustainable development and the circular economy. This is why I wanted to dedicate my graduation research to exploring remaining obstacles and challenges on the path to truly impact-oriented built industry.

Research approach

The initial research idea was on the broader field of sustainable development in the real estate industry and how that can be strengthened. Realizing this is quite a broad subject, some focus was needed – my initial interest was in the impact investing field and strategies on advocating for it across the real estate industry. However, there's already a plethora of research done on environmental action, and defining, measuring and reporting on environmental sustainability seems to be fairly stable.

On the other hand, social sustainability seemed to remain in the hindsight, possibly obstructed because of its intangibility but also because of a lack of understanding of the business case for it. Finally, after discussing the topic in detail with my mentors, I decided to focus on the gaps that prevent a better integration of social value in the built environment industry.

Research methodology and structure

Initially, the methodology involved a literature study for the theoretical part and case studies for the empirical part. The case studies were supposed to be carried out in real time, ideally with a few development projects and a few assets under management.

The more I read through literature and frameworks for social value, the more evident it became that case studies are not the correct approach for this research. Social value creation does not happen in an isolated manner on

a project-level. It takes great leadership, conviction, knowledge and skills, strategic and operational intent and a stable integration within decision-making for social value to truly work. This is why I decided to forego the case studies and instead focus on interviews. The interviewees were all senior in their respective organisation and had a good overview of how strategy is translated into actions and how actions turn into positive results.

Change of course

When I approached this research, the end goal I had in mind was to develop a standardized product. A standardized product – evaluation matrix, checklist, score card – that could simplify impact and unify measurement across the industry based on a concrete set of indicators. Reading through materials on the topic of measurement, and especially after conducting and analysing the industry interviews, it became apparent that context is everything. A standardized set of criteria could never be equally relevant for or equally applicable to every case out there. As indicated by the research, projects vary greatly based on local context, needs, stakeholders and lifecycle stage. The Roadmap for Defining Social Value (fig. X) shows the importance of covering all of these considerations when defining social value. Correspondingly, a strong measurement system should be flexible enough to account for all these considerations that go into the definition of social value. It was obvious a standardized product was not a meaningful solution to the issue of measuring social impact.

Consequently, I started to focus on standardizing the *process instead of the product*. I created a process management structure that allows stakeholders to adapt to different scenarios and successfully measure impact. Essentially this structure consists of an exhaustive list of impact themes, each of which includes guidance, applicability, KPI target selection, measurement methods selection (both selections are from existing frameworks and tools), quantification guidance and a mechanism for tracking progress and improvements.

A change of the research approach and planned product is a common occurrence when exploring an emerging topic, such as social impact in real estate. I believe that by changing my envisioned product after learning more on the topic, I was able to create a research output that can have a stronger and more meaningful contribution.

Another change of course that occurred was the switch from a more narrow focus on affordable housing to a more broader focus on the industry as a

whole. Initially, I wanted to develop recommendations for affordable housing providers, but it became apparent that the recommendations apply perfectly to other sectors within the industry, such as residential, mixed-use, office, retail, even logistics. I believe this research's contribution would be more meaningful if it can be applied to a larger part of the built environment industry.

Research process

Initially, the research aimed to follow the standard schedule (P1 - P5; September - June), however combining the research with a full-time job resulted in certain delays.

The literature study was interesting at the beginning – exploring resources and materials in an emerging field felt exciting. Also, virtually all resources seemed to address the need to shift the business model of the industry, which reassured me that I was on the right track embarking on this research.

Once the review of literature and frameworks began, however, the theoretical research turned into a repetitive and arduous task, which required analysing a vast amount of information in a short period of time.

In terms of the empirical research, the “deskwork” part– i.e., the analysis and mapping of frameworks, proved to be a fairly straightforward and structured process.

However, the other part of the empirical study, the interviewee selection and participation, took longer than anticipated. Reaching out, establishing contact and then scheduling interview appointments with each of the interviewees took more than two months.

The data gathered through the interviews was a “gold mine” of useful insights, and analysing it properly took some time. I changed my approach to evaluating the interview data a few times out of concerns that not enough of its substance was transferred into the research. The graphical representation of interviewee opinions also included some back-and-forths – it was important to ensure that data is represented in a meaningful manner and not just as survey results.

When it comes to feedback and feedback implementation, my tutors offered helpful directions and suggestions. An instance where the feedback fundamentally improved my understanding of the topic and made me fully

realize the challenge, I was addressing with this research was during my P2 evaluation. My tutors asked me to spend more time developing clear and simple links between problem statement, research question and research objectives. Several iterations later, I managed to crystalize the scope of the research, which made navigating the theoretical and empirical research much easier.

Two general reflections on what could have worked better in the process:

- I would have preferred to have been more prepared for the standard evaluation checkpoint (P1 – P4), but that was not always possible.
- I would have liked to have started project managing the research project earlier and more seriously.

Learnings and question to myself

The graduation thesis turned out to be a real-life project management exercise. It was an opportunity to test project management skills, and looking back, there's a lot I learned – the importance of setting realistic expectations, the importance of allowing for rest and recharge and the importance of having a system that would set me up for success. A lot these points I learned after failing the first time(s) in attempting to take a shortcut path without considering these points.

Apart from the above, I obviously also obtained extensive theoretical knowledge on social value, and I was lucky enough to get multiple insights into how it plays out in practice, through the interviews and other more informal discussions on the topic with colleagues across several organisations.

Questions to myself:

- How can I develop an effective system that will set me up for success?

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Appendices

Appendix A: Image and table descriptions

Figure 1	Research problem
Figure 2	Research approach.
Figure 3	Gaps.
Figure 4	Social Value Definition Roadmap.
Figure 5	Social Value Checklist.
Figure 6	Sustainable Development Goals in the context of the real estate sector.
Figure 7	Investment capital spectrum .
Figure 8	The concept model of this research.
Figure 9	Research problem, cause, and solution.
Figure 10	Links between research problem, research questions and research objectives.
Figure 11	Research approach.
Figure 12	The process of delivering social value. Adapted from the UK Green Building Council.
Figure 13	Participants in the interviews.
Figure 14	Interview data analysis process. Responses were analyzed in two parallel ways – across all stakeholders based on a single question, and across a single stakeholder group based on all questions.
Figure 15	How does your organization define social value?
Figure 16	Why does social value creation matter?
Figure 17	What are the main components of social value?
Figure 18	What measurement tools do you refer to?
Figure 19	Demands and expectations towards measurement tools are shifting
Figure 20	What do you measure in relation to social value?
Figure 21	What do you do with the results of social value measurement?
Figure 22	What is the role of expressing social value in financial terms
Figure 23	What do you think the social value practice will look like in a five years' time?
Figure 24	What are key steps to driving the improvement of the social value practice?
Figure 25	Gaps.
Figure 26	The frameworks and tools that were analysed are produced by organizations that have pioneered sustainable development.
Figure 27	Key components of the definition of social value based on mapping industry perspectives, certification schemes, frameworks and measurement tools.
Figure 28	Social value definition roadmap, which is targeted at addressing the "Initiation" gap.
Figure 29	Social value impact themes that constitute the checklist. Themes have been identified based on theoretical and empirical evidence. The checklist operationalises these themes into action points.

Table 1	"What changes have you made to or seen on your building projects (new or renovation) specifically in response to the COVID-19 pandemic?" (WorldGBC, 2021).
Table 2	Social value quantification methods. Based on theoretical research.
Table 3	A collection of common characteristics of how a project can deliver social value (Cooper et al, 2018).
Table 4	Selection criteria.
Table 5	Evaluation criteria for companies representing the investor's perspective showing the companies participating in this research.
Table 6	Widely used certification schemes, frameworks and measurement tools that have been analysed to address the gaps in the process.
Table 7	The Mapping Exercise, where selected certifications, frameworks, and measurement tools are compared to discover common measurement approaches for a set of social value KPIs.

Appendix B: Selection of interviewees + interview protocol

		Amvest	Syntrus Achmea	PFA	Triodos	MN	Bouwinvest
		Netherlands	Netherlands	Denmark	Netherlands	Netherlands	Netherlands
Required	Invests in real estate (>5 years)	V	V	V	V	V	V
	Has a measurement tool in place that evaluates the social impact created by the investment	V	V	V	V	V	V
Desired	Is a recognized sustainability/ESG front-runner	V	V	V	V	V	V
	Is PRI/B.Corp/GIIN/UN Global Compact certified or compliant	V	V	V	V	V	V
	Based in the European Union	V	V	V	V	V	V
		NREP	Heimstaden	Nelio Concepts	Vonovia	OBOS	Félagsbústaðir
		Denmark	Sweden	Finland	Germany	Norway	Iceland
Required	Manages or develops real estate (>5 years)	V	V	V	V	V	V
	Has a measurement tool in place that evaluates the social impact created by the asset/development	V	V	V	V	V	V
Desired	Is a recognized sustainability/ESG front-runner	V	V	V	V	V	V
	Is GRESB certified or equivalent	V	V	V	V	V	X
	Based in the European Union	V	V	V	V	X	V

Swedish Pensions Agency Sweden	Caisse des Dépôts France	Deutsche Wohnen Germany	Credit Suisse Switzerland	CBRE Residential Impact Fund EU	NatWest UK	Bulbank Bulgaria	PIC UK
V	V	V	V	V	V	V	V
V	V	V	V	V	V	V	V
V	V	V	V	V	V	V	V
V	V	X	V	V	V	X	V
V	V	V	X	V	X	V	X

Habitat for Humanity Bulgaria	NCC Denmark	Office Public de l'Habitat France		Places for People UK
V	V	V	Required	Manages or develops real estate (>5 years) V
V	V	V		Has a measurement tool in place that evaluates the social impact created by the asset/development V
V	V	X	Desired	Is a recognized sustainability/ESG front-runner V
X	X	X		Is GRESB certified or equivalent X
V	V	V		Based in the European Union X

Interview Protocol

Research: Quantifying Social Impact: Towards a standardized social value quantification and measurement in the context of affordable housing investing

Institution: Delft University of Technology

Interviewer: Alek Yordanov

Introduction

Firstly, thank you for taking the time to participate in this research. This interview contributes to my Management in the Built Environment (MBE) master's degree graduation project at TU Delft, which would not be possible without your contribution. The research focuses on social value in the context of affordable housing and addresses the challenges that social value measurement faces. The research aims to suggest a common definition for social value and a standardized measurement methodology, based on theoretical and empirical findings.

Main Research Question: How can social value measurement in the context of social housing be strengthened?

Q1: What fundamental aspects of the definition of social value are common across affordable housing investors and providers?

Q2: What key components of social value frameworks used by affordable housing investors and providers can be set as standards for social value measurement in the industry?

Data Collection

The information gathered in the interview will be used to adjust the propositions that have resulted from my theoretical research and provide new insights into best practices on social value measurement.

Please remember there are no "correct" or "incorrect" answers, and the responses will only be used for academic purposes only. Before we proceed, I will need to you to complete and sign the Informed Consent Form. Additionally, I will ask for your consent to record the interview so I may transcribe it into text, and afterwards delete the recording. Your answers in the interview will remain confidential, and findings will be presented in the below format to preserve anonymity. At any point you can decline to answer a question or withdraw from the interview.

Case	Organization	Interviewee	Role
Case A	Investor	Interviewee A	e.g. Sustainability Manager
Case B	Asset manager	Interviewee B	e.g. ESG Reporting Associate

Study contact details for further information: Alek Yordanov (a.yordanov@student.tudelft.nl)

Part 1: Introductions and defining the case (10 min)

- Can you briefly explain your role at your organization, what you are responsible for, and how many years you have been working in the field?

Part 2: Defining social value (15 min)

- 1) What sustainability terms are you most familiar with?
- 2) Why is your organisation's definition of social value?
- 3) Why does social value creation matter?
- 4) Which factors influence social value creation?

Part 3: Measuring social value (15 min)

- 1) Which framework or tools do you use or refer to regularly?
- 2) What do you measure in relation to social value?
- 3) How do you use the results of social value measurement?
- 4) How important is the role of monetisation (quantification)?
- 5) What do you think social value practice is likely to be in five years' time?
- 6) What is a first priority to drive the improvement of social value creation?

Part 4: Wrap-up and conclude

- Is there anything else that you would like to mention that you think is relevant to my study?
- Is there any other material/documents that you can share that would help me better understand the case?

Thank you!

Again, thank you for taking the time to participate in my research, especially during these hard times. If you would like, I can share my case study report with you before I publish it so you may confirm the details of the report, and either decide to remain anonymous, or opt-in to include your identity. Additionally, if you would like, I can share my finished project with you later this summer once I graduate.

Study contact details for further information: Alek Yordanov (a.yordanov@student.tudelft.nl)

Informed Consent Form

Research: Quantifying Social Impact: Towards a standardised social value quantification and measurement in the context of affordable housing investing

Institution: Delft University of Technology

Interviewer: Alek Yordanov

Please tick the appropriate boxes

Taking part in the study

- | | Yes | No |
|---|--------------------------|--------------------------|
| 1. I have been able to ask questions about the study and my questions have been answered to my satisfaction. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. I understand that taking part in the study involves answering questions that will be audio-recorded, with the sole purpose of transcribing the interview, after which, the recordings will be deleted. | <input type="checkbox"/> | <input type="checkbox"/> |

Use of the information in the study

- | | Yes | No |
|--|--------------------------|--------------------------|
| 4. I understand that the information I provide will be used only for academic purposes for the graduation project and corresponding presentation at TU Delft, unless indicated that certain information is confidential. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. I understand that personal information collected about me that can identify me, such as full name or address, will not be shared. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. I agree that my information can be quoted in research outputs. | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. I agree that my real name can be used for quotes | <input type="checkbox"/> | <input type="checkbox"/> |

Future use of information by others

- | | Yes | No |
|---|--------------------------|--------------------------|
| 8. I give permission for the publication of graduation thesis results at the TU Delft educational repository, which are partially based on the anonymized transcripts of this interview, to be used for future research and learning. | <input type="checkbox"/> | <input type="checkbox"/> |

_____ <i>Name of participant</i>	_____ <i>Signature</i>	_____ <i>Date</i>
 Alek Yordanov _____ <i>Name of researcher</i>	 _____ <i>Signature</i>	 03/05/2022 _____ <i>Date</i>

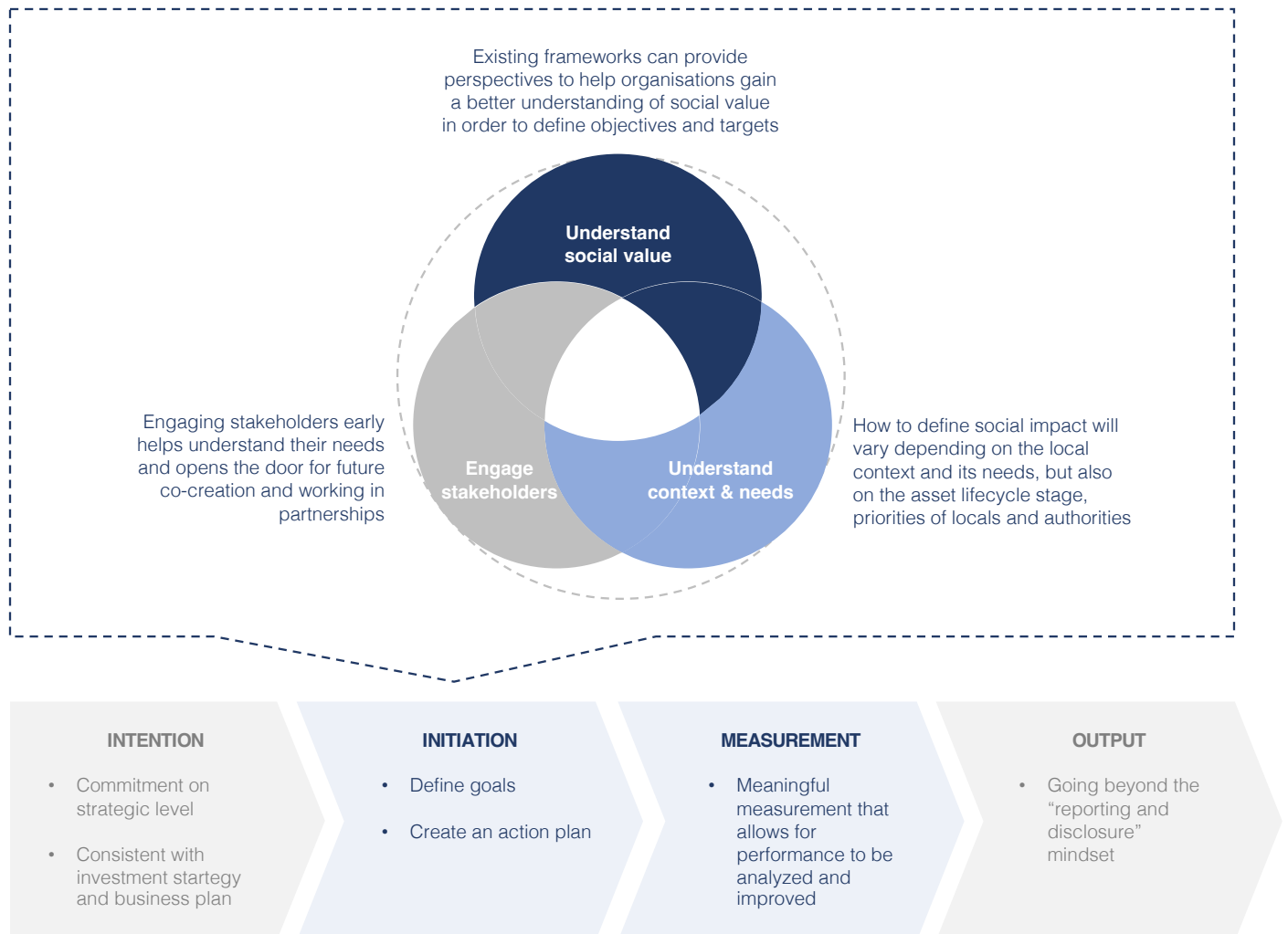
Study contact details for further information: Alek Yordanov (a.yordanov@student.tudelft.nl)

Appendix C: Mapping exercise

		Institute for Human Rights and Business (IHRB)					
	Mapped impact themes	Theory	BREEAM	DGNB	GRESB	WELL	Doughnut Economics
1	Accessibility and mobility	V	V	V	X	V	X
2	Adaptability	V	V	V	X	X	X
3	Affordable housing	V	X	X	X	X	V
4	Behavioural change	X	V	X	X	X	X
5	Profitability	V	X	V	V	X	X
6	Character	V	X	X	X	V	X
7	Community	V	X	X	V	V	X
8	Environmental sustainability	V	V	V	V	X	X
9	Health and well-being	V	V	V	V	V	V
10	E, D & I	V	X	V	X	V	V
11	Jobs and education	V	X	X	X	X	V
12	Participation	V	V	V	X	X	X
13	Quality of spaces	V	X	V	X	V	X
14	Resilience	V	V	V	X	X	X
15	Safety	X	X	X	X	X	V
16	Nutrition	X	X	X	X	V	V
17	Work-life balance	X	X	X	X	X	X
18	Monetization guidance	V	X	X	X	X	X

Table 1: Comparison of ESG Frameworks for Real Estate Investment								
UKGBC Framework for Defining Social Value	PRI	RIBA Social Value Kit	IRIS+	MSCI	OECD Social Value Measurement Framework	SDG	UN Positive Impact Real Estate Investment Tool	Indicator coverage rate
X	X	X	X	V	X	X	V	47%
X	X	X	V	X	X	V	X	33%
X	X	X	V	X	V	V	V	40%
X	V	X	X	X	X	X	V	20%
X	V	X	X	X	X	X	V	33%
X	X	X	X	X	X	X	V	20%
X	X	V	V	X	V	X	X	40%
X	X	V	V	V	V	V	V	67%
V	X	V	V	V	V	V	V	93%
V	X	X	V	X	X	V	X	53%
V	X	V	X	V	V	V	V	53%
X	X	X	X	X	V	X	X	33%
X	X	V	X	X	X	V	X	40%
X	X	X	V	X	X	V	X	33%
V	X	X	X	X	V	V	V	40%
X	X	X	X	V	X	V	V	33%
X	X	X	X	X	V	X	X	7%
V	X	X	X	X	X	X	X	13%

Appendix D: Social value definition Roadmap



Appendix E: Social Value Checklist

Resources for KPI and Measurement method selection

Type	#	Impact theme	Guidance	Applicable	Resources	KPIs	Measurement	Quantifiable	Progress
Physical	1	Accessibility and mobility	Will your project be equally accesible to all people of different abilities?	Yes/No	BRREAM , DGNB , IRIS+ , WELL, MSCI, UN.	Select	Select	Yes/No	Tracking
	2	Adaptability	Will your project's design be flexible and will it create potential for conversion, thus reducing lifecycle costs and minimising the risk of		BRREAM , DGNB , IRIS+ , SDGs .				
	3	Environmental sustainability	Will your project promote protection of ecosystems, energy efficiency, innovative building practices, waste and pollution minimisation, etc?		BRREAM DGNB GRESB RIBA IRIS+ MSCI OECD SDGs UN				
	4	Health and well-being	Will your project improve physical health, safety and mental well-being for everyone involved, including users, local community, project team, supply chain, etc?		BRREAM DGNB GRESB WELL Doughnut Economics UKGBC RIBA IRIS+ MSCI OECD SDGs UN				
	5	Quality of spaces	Will your project bring spaces and routes that are designed well, and will they be attractive, safe, uncluttered and work effectively for all in society?		BRREAM DGNB WELL RIBA SDGs				
	6	Nutrition	Will your project promote health improvement by influencing dietary behaviours and by increasng the marketing and availability of healthy foods?		WELL Doughtu Economics MSCI SDGs UN				
Mental	7	Affordable housing	Will your project provide or preserve housing units that are considered affordable in the local context?		Doughnut Economics IRIS+ OECD SDG UN				
	8	Behavioural change	Will your ptoject aim to promote solutions that encourage people to make the most sustainable choice?		BRREAM , PRI UN				
	9	Character	Will your project respond to and reinforce locally distinctive patterns of		WELL UN				
	10	Community	Will your project commit to strengthen communities and engage with them throughout the project lifecycle?		GRESB WELL RIBA IRIS+ OECD				
	11	Inclusivity, diversity and equality	Will your project aim to be inclusive, both in the project team and end users, as well as all other stakeholders involved?		DGNB WELL Doughnut Economics UKGBC IRIS+ SDGs				
	12	Jobs and education	Will your project support local job creation, education, training and/or businesses and products?		Doughnut Economics UKGBC RIBA MSCI OECD SDGs UN				
	13	Participation	Will you project allow for activities that promote active participation and involvement of users and		BREEAM DGNB OECD				
	14	Resilience	Will your project promote practices that mitigate risks, endure shocks and identify opportunities to adapt and thrive?		BREEAM DGNB IRIS+ SDGs				
	15	Safety	Will your project aim to be inclusive, both in the project team and end users, as well as all other stakeholders involved?		Doughnut Economics UKGBC OECD SDGs UN				
	16	Work-life balance	Will your project ensure relevant stakeholders can find balance between the demands f work and those of personal fulfillment and happier life?		OECD				
Additional	1	Guidance on monetization	Cost-Benefit Analysis SROI		UKGBC UKGBC				
	2	Tools for success	Do you have a feedback loop or another mechanism to stay enaged?						

