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Social value assessment in urban regeneration projects

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1. Introduction

Urban regeneration involves complex spatial transformations that go beyond the renewal of physical elements, encompassing a wide range of changes related to the social, economic, and environmental conditions of urban areas (Bianchi, 2019). These transformations include a set of activities and actions affecting various material components of cities, such as the built environment, grey and green infrastructure. Impacts affect not only the communities within the targeted area but also adjacent neighborhoods and the broader urban context.

In recent years, governments and international organizations have increasingly emphasized the creation of social value in spatial transformations and infrastructure construction, recognizing the broader societal benefits that such projects can generate beyond economic growth (Fujiwara et al., 2021). Some governments have introduced legislation that incorporates the concept of social value, such as the Social Value Act 2012 in the United Kingdom. Additionally, the concept of social value can be related to and framed within international frameworks such as the UN 2030 Agenda for Sustainable Development, because social value creation strategies can contribute to achieve many SDGs (Raiden & King, 2023).

Simultaneously, there is a growing interest among real estate operators and investors in understanding the concept of social value. Traditionally, real estate project appraisal and investment decisions have prioritized economic and financial returns, often disregarding social and environmental value (ULI, 2021). However, urban regeneration stakeholders are increasingly recognizing the need to clarify the concept of social value, measuring, and reporting it in a consistent manner. This shift necessitates the development of assessment approaches capable of evaluating the wider impacts of spatial transformations.

Currently, there is no shared definition of social value in the field of urban regeneration. The literature presents multiple definitions, reflecting the diverse "mission and vision, purpose, organizational structure, strategy, systems, culture, values, and employees" of the entities that adopt them (Raiden & King, 2023). Social value creation is a long-term, context-specific process, shaped by the unique characteristics of a given place, time, and real estate intervention (WEF, 2024).

The number of frameworks, methods, and tools for measuring social value in the real estate sector is expanding, adding complexity to this field. These instruments vary in terms of target users and objectives, and according to ULI (2021), no single approach is applicable across all projects and stakeholders. Dean et al. (2017) observe that conventional evaluation methods used to assess housing schemes often fail to account for social and environmental value, highlighting a critical gap in current assessment practices. Conversely, other scholars have pointed out that some assessment methodologies focus exclusively on environmental aspects while overlooking other dimensions. Indeed, the social dimension is inherently multifaceted and complex. This has generated a proliferation of many operative approaches and tools which focus on different aspects.

Given the diversity of social value definitions and assessment approaches, there is a clear need to consolidate existing knowledge and available instruments from both scientific and grey literature. Systematizing this body of knowledge and providing an overview of existing methodologies can offer valuable insights for urban regeneration practitioners, enabling them to navigate among these approaches in an effective way.

This paper aims to:

- Define social value in the context of urban regeneration projects, identifying and systematizing its key components.
- Review existing methodologies and tools for assessing social value in urban regeneration projects.
- Develop recommendations for social value assessment in urban regeneration projects, considering the diverse actors, phases, scopes, and characteristics of such initiatives.

The paper is structured as follows: beyond the introduction, Chapter 2 outlines the methodology; Chapter 3 explores social value in urban regeneration; Chapter 4 presents a comparative analysis of social value assessment methodologies and tools; and Chapter 5 discusses findings and provides recommendations.

2. Methodology

The research was implemented through the following methodological steps:

1. Literature review and content analysis on social value definitions

- Collection of scientific and grey literature on the topic of social value assessment in urban regeneration projects, using a set of keywords
- Content analysis of existing definitions of social value retrieved from literature and main social value components
- Elaboration of a definition for social value in the context of urban regeneration

2. Identification of methodologies and tools for social value assessment in urban regeneration

- Elaboration of a long list of methodologies and tools for social value assessment identified from scientific literature and practice-oriented reports
- Selection of a sub-set of methodologies and tools for in-depth analysis, applying a set of short-listing criteria.

3. Comparative analysis of selected methodologies and tools and case studies

- Comparative analysis of selected methodologies and tools based on a set of elements (matrix)
- Selection and description of case studies that represent practical examples of methodologies and tools' application.

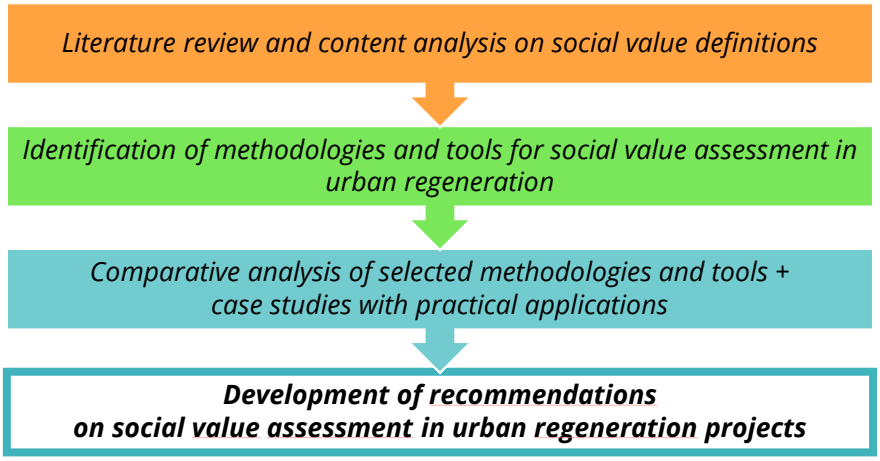

Figure 1: Main research steps and methodologies adopted

The following paragraphs describe into more detail each step and the main methodologies adopted throughout the research.

2.1 Literature review and content analysis on social value definitions

A systematic review of the scientific literature on social value assessment in urban regeneration projects was conducted using the Scopus database. The search was performed with the following set of keywords:

"urban" AND "regeneration" AND ("social" OR "societal" OR "public" AND "value")

The results were filtered according to the following criteria: published articles written in English and belonging to the disciplinary fields of Social Sciences; Business, Management and Accounting; and Economics, Econometrics, and Finance. This initial search yielded 438 results, which were further screened to ensure their relevance to the research topic. Specifically, titles were reviewed to identify papers addressing: (a) social value in urban regeneration; (b) social value assessment methodologies; and (c) case studies of social value assessments. This title-based screening reduced the sample to 42 papers. The selected papers were then reviewed based on their abstract. Additionally, a snowballing approach was employed to identify further relevant papers cited in retrieved studies. Following this process, the final sample comprised 22 scientific papers.

To complement the findings from academic literature, a search using the same keywords was also conducted on Google to identify grey literature (e.g., reports, policy briefs, and other relevant documents) which could represent insights from the professional practice sector, and additional scientific papers that had not been retrieved in Scopus but were consistent with the research topic. This search resulted in the selection of 9 reports, chosen based on their relevance to the study.

Definitions of social value were extracted from the selected documents and analyzed using MaxQDA, a software tool for qualitative content analysis that enables text segmentation and coding. Content analysis is a widely adopted method in academic research for systematically reviewing message characteristics through coding schemes (Neuendorf and Kumar, 2015).

To analyze the definitions of social value identified in the literature, a coding scheme was developed to systematically capture the key concepts embedded in these definitions. A second coding scheme was designed to identify the most frequently assessed themes related to social value. Both coding schemes were constructed using a bottom-up inductive approach, starting from the text and iteratively refining the codes throughout the process.

2.2 Identification of methodologies and tools for social value assessment in urban regeneration

In order to define the sample for an in-depth analysis of methodologies and tools for social value assessment in spatial transformations, two main steps were followed. First, a long list of methodologies and tools for social value assessment was compiled using multiple sources. Secondly, a subset of methodologies and tools was selected, according to specific selection criteria. For the compilation of the long list, the scientific and grey literature already collected for the “Definition of social value in urban regeneration projects” was used. In particular, ULI (2021) and Dean et al. (2017) provided multiple methodologies and tools. In addition, a dedicated Google search, with defined keywords, was conducted. Specifically, the applied search string was:

“urban” AND “regeneration” AND (“social” OR “societal” OR “public” AND “value”) AND ("assessment” OR “evaluation” OR “methodology” OR "tool" OR “monetization” OR “valuation” OR “measurement” OR “software” OR “calculator”)

Additional methodologies and tools were retrieved through snowballing technique by checking the supporting materials. In total, using these sources, 61 methodologies and tools for social value assessment were found.

Next, a set of selection criteria were applied, to define a sample of methodologies and tools for social value assessment in line with the goals of the research and with sufficient available information to conduct the in-depth comparative analysis:

a) *applicability to spatial transformation*: the methodology/tool should be applicable to spatial transformations;

b) *assessment results*: the results obtained by the application of the methodology/tool include a quantification of social value (by monetization or other approach*)* generated for the territory and/or the community where the transformation is implemented. Measurement of social value implies some forms of aggregation of indicators (by summing monetary values or other approaches, e.g. scoring);
c) *availability of documentation* on the methodological approach used to quantify/monetize social value, including information on the components, indicators, and expected results.

With the application of these selection criteria, 11 methodologies out of 35 identified and 6 tools out of 26 identified were finally selected for the in-depth analysis.

Table 1 displays the names of methodologies and tools included in the analysis.

Methodologies	Tools
1. National Themes, Outcomes and Measures (TOMs) framework 2022 2. National Social Value Standard 2024 (NSVS) 3. True Price 4. Impact-Weighted Accounts (IWA) 5. 3Rs Guidance - Assessing the Impacts of Spatial Interventions Regeneration, Renewal and Regional Development 6. Sustainable Return on Investment (SuROI) 7. New Deal for Communities (NDC) 8. Better Places approach 9. QALY-Based Wellbeing Valuation Methodology 10. Social Sustainability Framework 11. BS BSI (British Standardisation Instiute) Flex 390 v2.0:2023-03 Built environment. Value-based decision making. Specification	1. Housing Associations' Charitable Trust (HACT) Built Environment Bank 2. Royal Institute of British Architects (RIBA) Social Value Toolkit 3. Real Estate Social Index (RESVI) 4. Social Value Calculator 5. Australian Social Value Bank (ASVB) Calculator+ 6. Value toolkit

Table 1: List of methodologies and tools included in the comparative analysis

Specifically, **social value assessment methodology** is referred here as a method to identify, measure, and quantify in physical and/or monetary terms the social impacts and outcomes of an urban regeneration project. It encompasses a range of qualitative and quantitative techniques to assess the different components of social value and capture the overall social value generated.

A **social value assessment tool** is defined here as an instrument (or set of multiple instruments) providing guidance and/or practical support to implement a social value assessment methodology. It can comprise different types of instruments (e.g. checklists, questionnaires, guidelines, scorecards, ranking…). It can be implemented through a software or a web-app.

2.3. Comparative analysis of selected methodologies and tools

A comparative analysis of selected methodologies and tools was performed based on a set of elements. An analytical matrix to organize these elements was drafted at the beginning of research and iteratively refined. The matrix for the comparative analysis of methodologies is structured into three main sections:

1) **General information:** this section includes key information on when, by whom and for whom the methodology was developed, as well as its possible uses and applications;

2) **Assessment approach:** this section describes the main reference framework and high-level approach underpinning the methodology under analysis, and key elements of the social value assessment (i.e. what is assessed; how; with which metrics/indicators; in which project phases; how social value is calculated; if the results refer to a specific time horizon;

3) **Additionality, attribution and displacement calculation:** the final section delves into specific topics related to how social value is attributed to the project under analysis.

Specifically, indicators were extracted from the available documentation and analysed thematically by applying the main dimensions and codes emerging from the literature review. The list of codes was further refined during the in-dept review of indicators. Furthermore, indicators allowing for a monetization of social value were identified and tagged.
Overall, the comparative analysis aims to identify the main commonalities and differences in methodological choices for assessing social value in spatial transformations. Additionally, a set of case studies is presented alongside the comparative analysis to illustrate how methodologies and tools have been concretely applied in practice.

3. Social value and urban regeneration

As hubs of people, infrastructure, and economic activities, cities are widely recognized as centers of innovation, social capital, creativity, and economic growth. At the same time, they are increasingly affected by severe societal challenges, which encompass both socio-economic issues—such as rising living costs, social inequalities, weakening social cohesion, social polarization, demographic transitions, and workforce transformations—and environmental concerns, including climate change, pollution, and the depletion of natural capital. These challenges are further exacerbated by an uncertain and unstable geopolitical context.
When designed and implemented according to specific criteria, urban regeneration can help mitigate some of these issues in targeted urban areas and their surroundings by improving social, economic, and environmental conditions. Roberts (2004) defines urban regeneration as "a comprehensive and integrated vision and action aimed at the resolution of urban problems and seeking to bring about a lasting improvement in the economic, physical, social, and environmental condition of an area that has been subjected to change." However, if not carefully planned and managed, urban regeneration can also produce unintended negative consequences, such as gentrification, displacement, or the marginalization of low-income households, for example, through reduced availability of affordable housing or commercial spaces for local businesses (ULI, 2021).
Social value assessment offers a structured approach to evaluating both the positive and negative outcomes of urban regeneration initiatives across social, environmental, and economic dimensions. It can help identify broader area-wide benefits and propose strategies to mitigate adverse effects (ibid).

3.1. Defining social value in urban regeneration

There is an increasing demand from key actors involved in urban regeneration processes to clarify the meaning of social value and define common methodologies to perform effective social value assessments.
In the built environment business, social value assessment is often framed within the broader context of responsible business practices and corporate social responsibility (CSR), serving to evaluate whether businesses contribute positively to society and the environment. Social value considerations are gaining importance due to growing societal expectations, financial imperatives, and regulatory pressures, which are driving the real estate industry to prioritize social impact (JLL, 2023). Additionally, integrating social value into

corporate strategies can enhance an organization's ESG rating, performance, and overall impact, providing a competitive advantage in the market (ibid).

For investors, social value assessments offer valuable insights into the social impact of their investments and enable comparisons across different project proposals (UK-GBC, 2020). Real estate investors and investment managers are increasingly required to consider societal issues, driven by global commitments and policies on sustainable investment; client demand, as end-beneficiaries increasingly scrutinize how their capital is allocated; and by the emergence of innovative financial products developed by asset owners, asset managers, and financial institutions in response to regulatory and client pressures (ULI, 2021).

For the public sector, social value is closely linked to urban planning and local development objectives (LSDC, 2022). Social value assessments support public decision-making by comparing different projects, assessing their contribution to local policy goals (e.g., housing provision, job creation), and determining whether they generate tangible benefits for local residents and the broader urban area.

Given the varied perspectives on social value, several definitions exist in the literature. To identify the key concepts underpinning social value, a content analysis of 31 definitions was conducted using MaxQDA, a software tool for qualitative analysis. The results indicate that the most frequently associated term with social value is “wellbeing”, followed by “benefits”, ““positive impacts”, “positive change” and “quality of life”, as illustrated in Figure 2. Furthermore, wellbeing and benefits are frequently characterized as economic, social, and environmental.

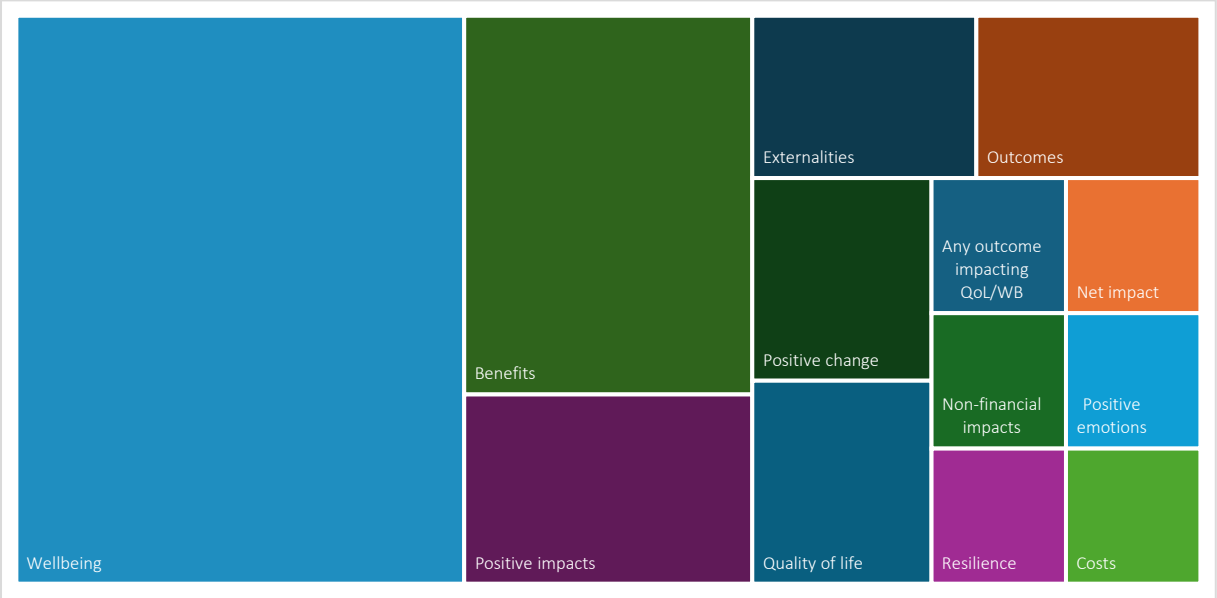

Figure 2: Social value definitions - Frequency of terms associated with social value (own elaboration)

Social value in the context of built environment projects, and more specifically urban regeneration, has profound relations with the context and the place where the project is implemented (WEF, 2024). A project might impact differently on people and communities, therefore the identification of relevant stakeholders is an essential step to define and evaluate the social value generated by a project (ibid). Indeed, social value is often defined as a subjective concept, which needs to be assessed from the perspective of different stakeholders (ULI, 2021). The identification of key stakeholders is often performed by defining a relevant area for the project, which makes social value local to that particular area (UK-GBC, 2020).

Considering the definitions of social value retrieved from literature, the types of stakeholders most frequently mentioned as beneficiaries of social value are “local communities”, followed by “people”, “existing and future generations”, “individuals”, “society”, “local businesses” and the “environment” (Figure 3).

Figure 3: Social value definitions - Frequency of beneficiary type (own elaboration)

The following definition was adopted to operationalize social value in the context of this paper: "benefits, tangible and intangible, generated by the creation/upgrade of buildings/infrastructures/assets/open spaces, functions and services that lead to the improvement of the quality of life and well-being of the community. For example, among the benefits brought by urban regeneration we include effects related to the economic, environmental, cultural, health, social care, justice and security dimensions" (based on HM Treasury, 2022).

The content analysis of grey and scientific literature enabled the identification of the key thematic areas addressed by social value assessments in urban regeneration. These themes were systematically organized into five main macro-categories:

1. Assets and spaces: this category encompasses various aspects related to built assets, open spaces, and infrastructure within the urban regeneration project.
2. Social dimension: this category focuses on community-related aspects, including the assessment of wellbeing and quality of life improvements for individuals and social groups.
3. Environmental dimension: this category includes evaluations related to environmental sustainability and performance, considering factors such as resource efficiency, energy use, and climate resilience within the project.
4. Economic dimension: this category addresses themes related to financial sustainability and economic performance, as well as broader economic factors such as business productivity and employment generation.
5. Organizational dimension: this category examines how organizations involved in spatial transformation contribute to social value creation, including their governance, corporate responsibility initiatives, and stakeholder engagement strategies.

The social dimension is the one with the largest number of themes identified (49 themes), followed by the environmental (27), assets and places (24), economic (20) and organizational dimension (20).

Considering all the five categories jointly (Figure 4), the most frequent theme is "employment" (22 occurrences), followed by "sustainable mobility" (11), "wellbeing" (11), "accessibility" (10), "mixed uses" (10), "safety", health" and "public spaces" (9 occurrences each). Among the most frequent themes, a large share belongs to the social dimension.

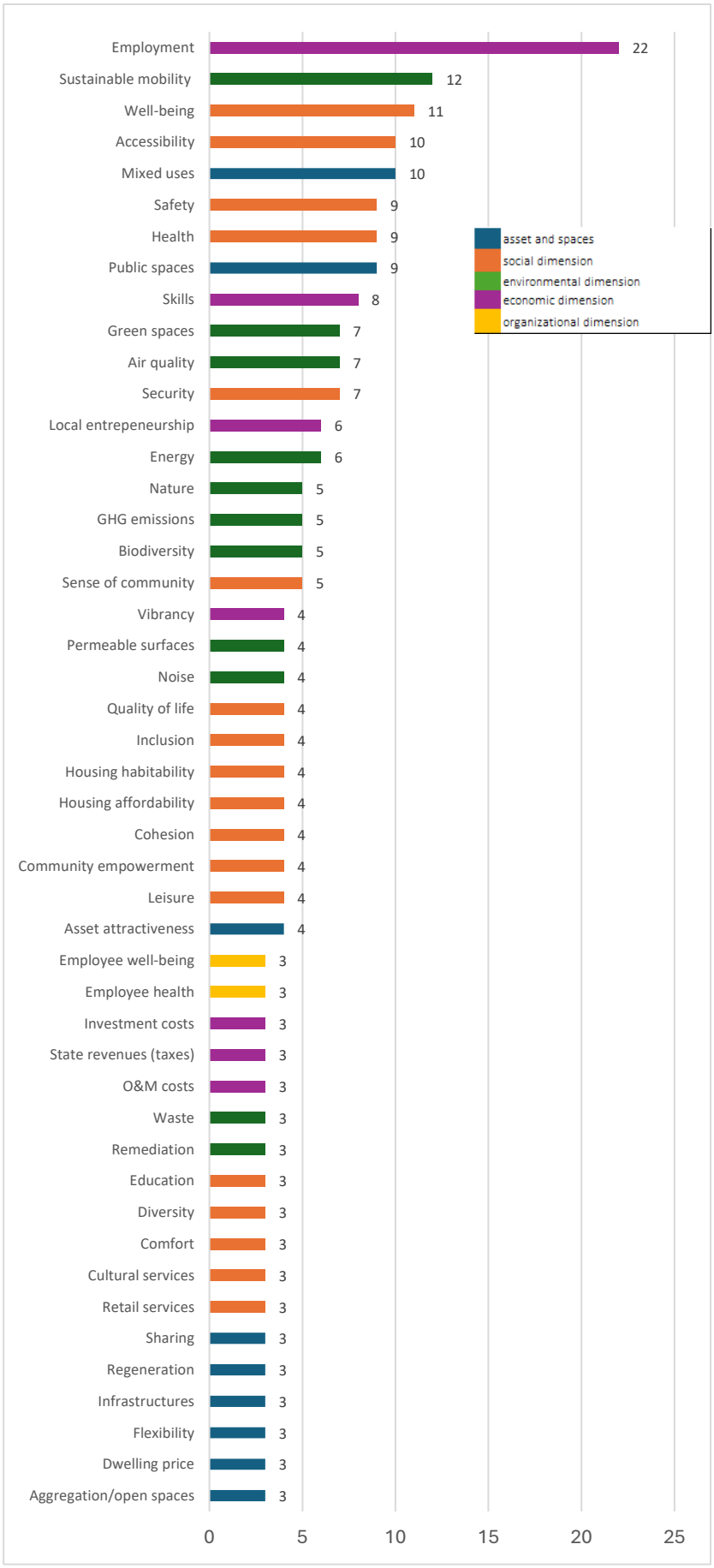

Figure 4: Most frequent themes within the 5 macro-categories (own elaboration)

The full results of coding for each dimension are included in the Annex.

3.2. Approaches for social value assessment

Urban regeneration projects are complex in nature, and they involve the evaluation of several elements simultaneously: not only technical elements related to the physical improvements foreseen on the built environment and open spaces, but also environmental, economic and social dimensions, including the social context in which the project is situated and the vision, preferences and values of communities (Bottero et al. 2019; Bottero et al., 2022). Furthermore, urban regeneration is a long-term process which does not end with the completion of physical interventions but can produce impacts also for several years after the project delivery. For these reasons, several authors have proposed to combine and integrate different methodologies to assess the overall sustainability and social value of urban regeneration projects, to include both technical and non-technical aspects and cover all relevant dimensions (ibid).
Methodologies for the assessment of value generated by urban regeneration projects can be broadly categorized into four main methodological approaches:

1) Financial Analysis
2) Cost-Benefit Analysis
3) Multi-Criteria Decision Analysis
4) Social Return on Investment

These categories imply key differences among methodologies, in terms of purposes, target users, inputs needed and outputs obtained.

Financial analysis (FA) primarily aims to evaluate costs and benefits of a project over its lifetime to assess the financial profitability, based on the calculation of financial indicators like the Net Present Value or the Return on Investment. It is mainly used by investors to assess and compare their own investments. The assessment is limited to the financial value generated by the project for investors.

Cost-Benefit Analysis (CBA) aims to measure the wellbeing variation generated by a project, comparing its monetised costs with monetised benefits and calculating a net benefit or a benefit-cost ratio (Fujiwara et al., 2021). It is the most preferred method in the public sector to evaluate the social value generated by interventions and it is mostly used for the evaluation of public investments (ibid). CBA makes use of monetary estimations of wellbeing variations, and therefore can be quite resource-intensive and imprecise, because not all wellbeing variations can be directly translated into monetary terms and some forms of estimation are needed. However, CBA is considered to provide a comprehensive overview of social value generated by a project.

Multi-Criteria Analysis (MCA) aims to evaluate several aspects of a project or different project solutions considering a broad range of criteria, which can refer both to positive or negative impacts, and be qualitative or quantitative in nature. Criteria can be weighted to reflect different priorities or objectives of concerned stakeholders. A ranking of assessed solutions is produced, according to the results obtained across the different criteria. MCA enables a comprehensive evaluation considering a plurality of aspects, which reflect the complexities of urban regeneration projects, but it also comes with a high level of complexity in the implementation of the methodology itself. It is mostly used to analyse alternative options and in feasibility studies.

Social Return on Investment (SROI) aims to evaluate the changes induced by a project, translating its social, economic and environmental outcomes into monetary terms and calculating a ratio of benefits relative to the investment required (Bottero and Dattola, 2020). SROI shares some methodological elements with the CBA approaches, and in some categorizations it is included under the CBA. However there are some differences between the two approaches. SROI can also include qualitative information in the calculation and outcomes to be measured are usually defined based on stakeholder input. Also, SROI allows to aggregate the financial value of economic outcomes with the financial proxy of wellbeing outcome, provided there is no double counting. In CBA, instead, only values that are proxies for quality of life are aggregated, therefore CBA ratios are considered to be more comparable than SROI ratios (UK-GBC, 2020). SROI is increasingly used in the infrastructure sector, but it is also considered to be flawed by methodological and structural issues (Fujiwara et al., 2021).

The following table synthesizes the key features of each approach:

Methodological approach	Description	Uses	Strengths	Weaknesses
Financial Analysis (FA)	Evaluates the financial profitability of a project analysing costs and benefits over the investment lifetime	Mainly used by investors to assess financial viability.	Provides clear and easy-to-interpret financial indicators for investors, like Net Present Value and Return on Investment.	Limited to financial value; does not account for social or environmental externalities.
Cost-Benefit Analysis (CBA)	Measures the wellbeing variation generated by a project by comparing monetized costs and benefits.	Preferred in the public sector for evaluating social value of public investments.	Offers a comprehensive social value assessment and is widely accepted in policy analysis.	Resource-intensive; relies on imprecise monetary estimations of wellbeing.
Multi-Criteria Decision Analysis (MCA)	Evaluates multiple aspects of a project that have a broad range of objectives using a set of qualitative and quantitative criteria, often weighted to reflect different priorities.	Used for feasibility studies and comparing alternative project options.	Considers multiple dimensions, including qualitative aspects, making it adaptable to complex projects.	Methodologically complex and requires extensive data processing.
Social Return on Investment (SROI)	Assesses the social, economic, and environmental outcomes of a project in monetary terms, producing a ratio of benefits relative to investment.	Increasingly used in the infrastructure sector to quantify broader social impacts.	Captures a wide range of impacts, including stakeholder-defined outcomes, and allows for qualitative information integration.	Methodological and structural challenges; results may lack standardization for comparability.

Table 2: Main methodological approaches for value assessment in urban regeneration projects (elaboration on Fujiwara et al., 2021 and Bottero et al., 2022)

The application of these methodological approaches emerged also in the systematic literature review performed as initial step of the research. The search of relevant scientific literature on the topic yielded 22 papers which address the topic of social value assessment in urban regeneration considering different strategies and typologies of interventions (i.a. brownfield redevelopment, regeneration through Nature-based solutions/green-blue infrastructures, grey-infrastructure renovation, culture-led regeneration, heritage-related regeneration, community-led initiatives, housing renovation schemes).

Reviewed papers can be divided into different groups, according to the main methodological approaches they apply in assessing social value from spatial transformations. A first group of papers utilizes a set of indicators and metrics according to the main objectives of their analysis. The seminal work of Hemphill et al. (2004) defined a set of indicators to measure the sustainability performance of urban regeneration projects across several domains. Mak and Stouten (2014) consider indicators on properties' market value and liveability indexes to evaluate the effects of urban renewal on two neighbourhoods of Rotterdam (the Netherlands), Oude Noorden and Spangen, promoted by the municipality of Rotterdam. They compare initial measurements and recent data, looking at the neighbourhoods' value in a comparative perspective within the rest of the city. Laprise et al. (2018) apply a set of indicators within a dedicated software to assess a brownfield regeneration of a former university campus. Almahmoud and Doloi (2020) perform a multivariate statistical analysis to identify the importance of different factors for social sustainability on two regeneration construction projects

in Riyadh (Saudi Arabia). Damigos and Kaliampakos, (2012) apply different approaches to two case cases in Greece, the redevelopment of a former metallurgical complex into a Technological and Cultural Park and the potential transformation of the former Athens International Airport into a Metropolitan Park. In the first case they apply a financial cash flow analysis, socio-economic analysis and monetization of environmental benefits. In the second case they use a Fuzzy Delphi Method, based on expert elicitation, to estimate the effect of redevelopment activity on prices of nearby dwellings.

A second group of papers utilizes MCA analysis combined with other approaches to assess a set of alternative scenarios, taking into account socio-economic specificities of the context and stakeholder needs. Bottero et al. (2022) combine a Financial Analysis and a Multi-Criteria Decision Analysis to assess 11 alternative scenarios for the requalification of Rogoredo railway area in Milan (Italy). Bottero and Datola (2020) perform a stakeholder analysis and Social Multi-Criteria Analysis on 6 regeneration alternatives for the requalification of an area with social and economic fragility in Italy, Collegno. Capolongo et al. (2019) use different techniques including stakeholder analysis, value elicitation, scenario definition, Discounted Cash Flow Analysis and MCA to identify the most balanced scenario considering heritage preservation and urban regeneration for the reuse of an abandoned health care facility with several historic buildings in Vimercate (Italy). Della Spina (2019) adopts a multi-criteria analysis to support decision-makers in choosing suitable scenarios to trigger circular development processes through culture-led regeneration strategies for the historic centre of Catanzaro, Italy, taking into account the role of cultural heritage in a systemic landscape perspective. She highlights the importance of leveraging both expert-knowledge and community-knowledge in the evaluation of regeneration projects. Angrisano et al. (2019) focus on the adaptive reuse of a historical religious building by utilising a multidimensional framework in Sant'Agata de' Goti historic village (Benevento, Italy). Bottero et al. (2019) implement stakeholder analysis, Social Multicriteria Analysis and Multi Attribute Value Theory (MAVT) to assess the best alternative scenario considering stakeholders' preferences and needs for the redevelopment a former industrial area in Kwun Tong district, Hong Kong.

A third group of papers utilizes CBA analyses, comparing costs and benefits derived from different typologies of interventions. De Sousa (2002) employs CBA to compare brownfield regeneration projects with greenfield developments in the Greater Toronto Area. Ribeiro (2008) applies CBA to a regeneration intervention in the historic oldtown in Lisbon (Portugal) for the São Paulo community. Tyler et al. (2012) develop cost-benefit measures to assess the effectiveness of regeneration programmed in UK undertaken from 2000 to 2009. Fujiwara et al. (2023) discuss the fundamentals of social value measurement in infrastructure projects, delving into the main approaches and the monetization techniques. They perform a CBA analysis on a road restructuring project, comparing the project scenario with the existing state of the road. Louali et al. (2022) emphasize the importance of balancing tangible (i.e. material) and intangible (i.e. immaterial) costs and benefits within the evaluation of regeneration initiatives. They implement a Social CBA to evaluate the social return on investment of bottom-up regeneration initiatives, in particular a socio-spatial regeneration project where residents and entrepreneurs were allowed to start activities on vacant and open spaces on three main thematic areas: 1) urban agriculture; 2) natural encounters; 3) recreation.

Several papers implement SROI analysis, such as Tate et al. (2023) who calculate the SROI of an urban regeneration project in Belfast (Ireland) based on the implementation of an urban green and blue infrastructure, the Connswater Community Greenway. Watson and Whitley (2017) stress the importance of considering the outcomes experienced by people in the built environment, which result from the dynamic interactions between buildings, users and the social context, and they highlight the lack of post-occupancy evaluations in the built environment. They find that post-occupancy evaluation has relevant overlaps with the social value assessment agenda. They apply SROI to three non-clinical healthcare buildings, by leveraging interviews, focus groups, user surveys and financial valuation techniques (ibid). They examine the technical challenges related with calculating the SROI of a building design within buildings that are already occupied and used, rather than of a specific intervention. Dean et al. (2017) provide an overview of methods available for the assessment of urban regeneration programmes and projects and describe an application of the Sustainable

Return of Investment (SuROI), which merges SROI with Ecosystem Services Assessment. They assess the environmental and social value of two completed projects, a high-rise housing scheme and an environmental-led program developed by City West Housing Trust (a nonprofit housing association based in the Manchester area), comparing the results obtained with the application of SuROI and of the Single Regeneration Budget evaluation method, developed for a large regeneration programme in UK. Also Higham et al., (2017) apply SuROI to evaluate three housing-led mixed-use regeneration developments. They provide an overview of available approaches to evaluate sustainability in the built environment sector and urban regeneration, to identify strengths and weaknesses of different approaches like MCA, SROI and others.

Mariotti and Riganti (2021) perform a valuation of social benefits from an urban regeneration intervention regarding the reopening of the Martesana canal within the city of Milan (Italy) by means of a Contingent Evaluation analysis, to estimate citizens' Willingness to Pay (WTP) for the benefits of the intervention. They also compare the results with the valuation of the same intervention obtained through another approach, Hedonic Pricing.

The last group of papers utilizes qualitative approaches and stress the importance of combining quantitative and qualitative techniques. Judd and Randolph (2006) focus on the Australian context and highlight the benefits of using qualitative methodologies in evaluating estate renewal programmes, as complementary approach to quantitative methodologies. By exploring the experiences and perceptions of residents, qualitative methods can enable a better understanding of how much wider social impacts and outcomes have been achieved by the renewal process (ibid). Qualitative methods typically rely on focus groups, stakeholder interviews, and contextual case studies. On the same line, Raiden and King (2023) recall the importance of using mix-methods approach, collecting both qualitative and quantitative data and employing a variety of techniques in analysing them, as a comprehensive approach to measure social value. Ying et al. (2023) perform a Social Impact Assessment by inquiring citizens' perceptions and satisfaction with the waterfront state within the river in Sungai Petani (Malaysia) and assess perceptions towards a possible regeneration strategy of the waterfront area.

The following table groups the identified papers in different clusters according to the methodologies implemented. From the group composition, MCA and CBA emerge as the most diffused methodologies. A table with the full list of papers and case studies is enclosed in the Annex.

Methodological approach	N. of papers	Paper authors
Indicators-based	3	Hemphill et al. (2004) Mak and Stouten (2014) Laprise et al. (2018)
Statistical analysis	1	Almahmoud and Doloi (2020)
Financial analysis + other	1	Damigos and Kaliampakos, (2012)
MCA + other	6	Angrisano et al. (2019) Bottero et al. (2019) Bottero et al. (2022) Bottero and Datola (2020) Capolongo et al. (2019) Della Spina (2019)
CBA	5	De Sousa (2002) Fujiwara et al. (2023) Louali et al. (2022) Ribeiro (2008) Tyler et al. (2012)
SROI/SuROI	4	Dean et al. (2017) Higham et al. (2017) Tate et al. (2023) Watson and Whitley (2017)
Social Impact Assessment	1	Ying et al. (2023)

Table 3: Number of scientific papers retrieved, categorized by methodological approach

From the review of these papers, it is clear that the selection and application of a specific methodology is tightly connected with the evaluation purposes and the timing of social value assessments. Social value

assessment is relevant both in the ex-ante and ex-post phases of urban regeneration projects (Mariotti and Riganti, 2021). Ex-ante assessments support decision-making processes, allowing to compare alternative projects and solutions. They can inform project design and enable social value outcomes to be incorporated in the project before final decisions are taken, therefore contributing to shape and orientate project design. Ex-post assessments are needed to measure and report the degree of achievement of specific outcomes and results obtained, which can provide relevant lessons to similar projects and to stakeholders involved in the sector.

3.3. Key issues in social value assessment

The review of grey and scientific literature has highlighted several key issues in measuring and assessing social value in urban regeneration projects.

A primary issue is the inherent complexity of defining social value and the lack of consistency among definitions within the built environment sector (Higham et al., 2017; UK-GBC, 2020; LSDC, 2022). The absence of a standardized definition has direct implications for measurement and assessment approaches. A second, closely related issue is the proliferation of methodologies and approaches for assessing social value in the built environment sector, which creates confusion among potential users and hinders comparability (ULI, 2021). LSDC (2022) emphasizes the overlaps between concepts, methodologies, and outcomes across different sectors and organizations in both the public and private spheres. UK-GBC (2020) further highlights the absence of a unified framework or tool in the real estate industry, in contrast to the public sector, which is comparatively better equipped with established methodologies and consolidated approaches.

Despite a strong demand for more standardized assessment approaches, some authors highlight that social value assessment needs tailoring to local projects, and standardized set of metrics may not prove to be suitable enough for all projects (LSDC, 2022). The exclusive use of standardized metrics could constrain communities, developers, and local authorities in delivering and monitoring specific outcomes aligned with local needs (ibid). Therefore, a balance is needed between ensuring consistency in measurement and acknowledging the diverse ways in which different communities and stakeholders conceive and perceive social value.

Additionally, several methodological challenges must be addressed. A key aspect of methodologies is the identification of value beneficiaries—that is, the individuals and organizations that benefit from the value created. Many existing social value measurement approaches do not clearly define beneficiaries (UK-GBC, 2020). Furthermore, urban regeneration exhibits characteristics of a public good, as certain benefits, such as those derived from housing renovations, are non-excludable and accessible to all. This must be taken into account in social value assessments (Ribeiro, 2008).

Another key aspect regards what is measured and used as proxy indicator to estimate the social value generated by a project. These indicators might refer to “outputs”, “outcomes” or “impacts” related to a project, but these terms underpin quite different concepts. Outputs mainly refer to tangible and short-term results, namely products, services and infrastructure that are directly created through an urban regeneration project. They can be easily monitored and compared by using indicators on delivered results, like areas or length of new infrastructures created (e.g. kms of cycling paths, mq of new green areas). Outcomes, instead, are the long-term changes and effects that result from the outputs of an urban regeneration, and they can refer to social, economic and environmental dimensions. They are more difficult to monitor compared to outputs, and can be measured by focusing on the changes generated by the urban regeneration project (e.g. increase in social cohesion, public health improvements) considering the transformational effects and social value created by the interventions over time. Outcomes represent a set of objectives that the project should aim to realize, and they can be discussed and agreed between relevant stakeholders to achieve a shared perspective of social value.

A lively debate in the literature regards the quantification and monetisation of social outcomes by using financial proxies, to include the obtained results in the overall social value assessment. Some authors argue

that sustainability aspects cannot be monetized as sustainability in itself is a theoretical concept not embedded in the market mechanism (Haapio and Viitaniemi, 2008; Ding, 2008). Other authors underline that the process of selecting and attributing a monetary metric to a non-financial outcome may lack objectivity and could lead to overestimate value (Krley et al., 2013). Others emphasize that measuring social value only in numerical terms risks to put attention only to aspects that can be quantified (Raiden and King, 2023). On the other side, monetization is considered by many practitioners as a useful approach to convey in a common metric the measure of a project social value (ULI et al., 2021). Furthermore, economic valuation provides key information for decision-makers in the built environment sector, which is profit and return-driven and greatly relies on monetary evaluations for comparing alternatives (Higham et al., 2017). In order to embed effectively social and environmental value into project evaluation, the conversion of non-financial outcomes into a common unit of value is a possible solution (Watson and Whitley, 2017).

Social value generated by spatial transformations comprises both outcomes which have a market price and have an impact on financial resources, and outcomes related to non-market goods such as environmental or social externalities (Fujiwara et al., 2021). The valuation of non-market goods can rely on different methodologies, which can be broadly categorized in i) revealed preference, ii) stated preference and iii) subjective wellbeing valuation methods, where i) and ii) focus on the calculation of people willingness to pay for a good, while iii) compare how a good affects subjective ratings of wellbeing with how money affects the subjective ratings of wellbeing (ibid).

Another significant challenge is the attribution of social value specifically to the project under assessment. Spatial transformations occur within complex socio-economic contexts, influenced by various factors and tensions that shape the economic, social, and environmental conditions of a community. Specific techniques are required to disentangle a project's actual contribution to social value generation from other contextual influences. Moreover, it is crucial to ensure that the value generated within the project area is not merely "displaced" from adjacent areas, as failing to account for such displacement could lead to an overestimation of the project's impact.

Attribution is also linked to the need to demonstrate the additionality of social value generated by the project. This involves comparing the project scenario with a counterfactual scenario representing what would have occurred in the absence of the project. Place-based regeneration processes are often implemented in areas where multiple policy initiatives intersect, contributing to the observed outcomes and making it difficult to isolate the additional impact of a single project (Judd and Randolph, 2006). For example, a reduction in crime within an estate may result from declining unemployment rates rather than from specific crime prevention strategies implemented as part of the regeneration program (ibid).

Several approaches exist to demonstrate that a project has delivered additional value. LSDC (2022) outlines three key methods: i) assessing whether project outcomes exceed policy compliance and relevant regulatory requirements; ii) comparing project outcomes against industry benchmarks, if available for comparable projects; iii) measuring social value at a site before and after project implementation to determine the differential value, which can be considered "additional."

Mirroring additionality is the concept of deadweight, namely the “measure of the proportion of the outcome that would have happened anyway, regardless of the intervention” (Watson and Whitley, 2017). Deadweight can be represented as a percentage share which is subtracted from the measured outcomes to account for what would have been achieved even without the project, and it is another adjustment to avoid overestimating social value assessment. A further adjustment takes into account the drop-off, namely the fact that social value does not remain stable over time but might deteriorate and diminish over the years. For this reason, some social value calculations progressively reduce the amount of social value each year when long-term periods are considered (Watson and Whitley, 2017).

Finally, data availability and reliability present further challenges. The quality and quantity of data significantly influence the robustness of social value assessments. At the same time, collecting high quality primary data can be a resource-intensive process, especially when large scale and complex urban regeneration projects are

to be assessed (Higham et al., 2017). The table below outlines potential types of primary and secondary data that can be leveraged in the assessment of social value in urban regeneration projects.

Primary data	*Secondary data*
- Resident interviews and surveys - Visitor surveys - Wider stakeholders and local authority interviews - Local business surveys - Workshops with stakeholders and local community - Annual accounts and expenditure budgets - Project delivery data - Consultations with project teams at construction and operation	- National and local databases on relevant topics (e.g. crime, health, economy…) - Reference projects - Community consultation data - Local city council meeting reports and minutes - Unit Cost Databases - Academic research - Estate and building information - Occupier information

Table 4: Main typologies of primary and secondary data for social value assessments (based on UK-GBC, 2020)

4. Comparative analysis of social value assessment methodologies and tools

This Chapter aims to focus on a set of methodologies and tools selected from the over 60 identified in the collection of grey and scientific literature, to delve into how they conceive, disentangle and measure social value within urban regeneration projects. Given the high number of methodologies and tools retrieved, a selection was performed according to the selection criteria specified in the par. 3.2, and ensuring a balanced representation of different methodological approaches. The next sections present the sample and delve into the comparative analysis.

4.1. General overview

The selection process yielded a sample with 11 methodologies and a second sample with 6 tools to measure and capture social value. Table 5 and 6 respectively display key information about the methodologies and tools included in the analysis.

At a first sight, it is noticeable how social value assessment is a novel subject, as 5 methodologies out of 11 have been developed after 2020, as shown in Table 5. The only methodology defined before the 2000s is the New Deal for Communities (NDC).[1]

A large share of methodologies included in the sample has been developed by private companies (5 out of 11), Universities/research organizations (4 out of 11) and non-profit organizations (3 out of 11). Furthermore, two methodologies developed by public authorities are included in the sample. Additionally, while some approaches have been developed by a single organization, others result from collaborations between different types of organizations, such as partnerships between private companies and universities or between public authorities and research institutions.

[1] The NDC assessment methodology does not explicitly use the expression "social value", but it has been considered as consistent with the scope of this analysis as it was an area-based initiative aimed to achieve a holistic change in deprived communities considering a set of place-based and people-based outcomes. These outcomes represented the main structure of the evaluation framework to assess the NDC results, and are in line with the main definitions of social value identified in the literature.

Name	Description	Year of development	Developer name	Developer type
National TOMs 2022	Reporting standard for measuring social value in procurement and management. It centres around five key themes, including jobs, growth, social, environmental and innovation. Each of those has outcomes and measures. It includes financial proxy values and a real estate plug-in.	2022 (first version 2017)	Social Value Portal, National Social Value Taskforce	Private company
National Social Value Standard 2024	A measurement framework for the appraisal of social value- at the forecasting, monitoring, and evaluation stages.	2024 (first version 2016)	55 Group (Holdings) Limited	Private company
Better Places Approach	Evidence-based approach to social value, created to make better-informed decisions in spatial planning and land use. [pg4	2023	Stantec; University of Reading	Private company and University
Social Sustainability Measurement Framework	A framework designed to measure social sustainability in urban regeneration and housing development projects. It includes indicators to assess physical aspects (such as infrastructure and transport) and non-physical aspects (such as social relationships and sense of belonging).	2012	Social Life and the University of Reading, in collaboration with Acton Gardens LLP.	Non-profit and University/Research Institute
True Pricing Framework	A methodology to calculate and communicate the true cost of products by including social, environmental, and economic impacts. It enables businesses and consumers to understand and address unsustainable external costs associated with production and consumption.	2012	True Price Foundation and Impact Economy Foundation	Non-Profit
Impact-Weighted Accounts Framework (IWAF)	A framework that integrates the positive and negative social, environmental, and economic impacts of an organization into its financial accounts. This enables organizations to measure, monetize, and manage their societal contributions alongside traditional financial performance	2019	Impact Economy Foundation, with support from partners including Harvard Business School	Non-Profit
Sustainable Return on Investment (SuROI)	A methodology that combines Social Return on Investment (SROI) with environmental and economic impact assessments to evaluate the comprehensive value created by regeneration projects. It translates social and environmental changes into monetary terms for better decision-making and investment appraisal	2011	Professor Erik Bichard, University of Salford, UK	University/Research Institute
3R Interventions	The acronym 3R stands for: Regeneration, Renewal, and Regional Development. It is a guide for spatial interventions in regeneration, renewal, and regional development. Recommended for large-scale interventions. It replaces the 1995 HM Treasury document commonly known as EGRUP.	2004	HM Treasury, supported by various government entities	Public authority
BSI Flex	The BSI Flex 390 v2.0 is a guide for value-based decision-making processes, specifically for projects in the built environment. It focuses on defining, creating, and measuring value through a sustainability-driven approach.	2023	The British Standards Institution (BSI), sponsored by Construction Innovation Hub	Public organization
QALY- Based Wellbeing Valuation Methodology	This methodology aims to monetize wellbeing by using Quality-Adjusted Life Years (QALYs) as a proxy for social value. It integrates health economics and wellbeing outcomes to provide a transparent and intervention-specific valuation of social benefits and costs. It offers a structured approach to connect changes in wellbeing directly with stakeholder experiences.	2020	RealWorth and Envoy Partnership	Private company
New Deal for Communities (NDC)	New Deal for Communities was a comprehensive area-based initiative aimed at regenerating 39 of the most deprived neighbourhoods in England through holistic improvements in crime reduction, education, health, housing, physical environment, worklessness, and community engagement. Interventions involved partnership-based, locally driven strategies. A specific evaluation framework, using longitudinal data to track changes, was developed to assess the results of this initiative.	1998	Department for Communities and Local Government (DCLG) with evaluation by the Centre for Regional Economic and Social Research (CRESR) at Sheffield Hallam University	Public Authority and University

Table 5: List of methodologies included in the sample

Considering the social value assessment tools which have been identified as applicable to spatial transformations, only 1 out of 6, the Australian social Value Bank (ASVB), has been developed before 2020. Apart from the Social Value Calculator, which has no explicit creation date listed, the remaining 4 tools have been developed in recent years. While two tools have been developed by private companies and two from no-

profit, one results from a collaboration between a professional membership body (RIBA) and a university, and another was developed by a private research centre.

Name	Description	Year of development	Developer name	Developer type
Social Value Insight - Built Environment Bank	The Social Value Insight is a tool that can use the Built Environment Bank, a suite of values that can measure the social impact of construction and supply chain activities	2024 (it has replaced a previous tool, named Social Value Bank Calculator)	Housing Associations' Charitable Trust (HACT)	Non-profit
RESVI TM (Real Estate Social Value Index)	Detailed, standardised tool for measuring, reporting, and improving the Social Value generated by 'in-use' real estate and infrastructure assets. In addition to measurement, it includes diagnostic (based on gap analysis) and grading (based on social value maturity). It is underpinned by the Social Value TOM System	2021	Social Value Portal	Private company
Social Value Calculator	Reporting software on social value measurement developed by Loop using the National Social Value Standard	2016	Loop	Private company
Value Toolkit	It is a suite of tools to make value-based decisions in the construction sector. It includes "The Value Definition and Measurement stream", which aims at developing a Value Profile for project/programme where what is considered important is articulated, and Value Scorecards where performance is assessed (the other stream is the "Client approach", which identifies the activities that help clients in achieving their core values in the project/programme). It is a government backed initiative	2022	Construction Innovation Hub	Non-profit
RIBA Social Value Toolkit	Bottom-up initiative developed by a group of UK researchers in architecture practices. The SVT has two parts: A library of post occupancy evaluation questions developed out of wellbeing research and considerable consultation. A monetisation tool that can be used as a clip on to other post occupancy evaluation processes, particularly questionnaires such as the Arup Building User Survey (BUS)	2020	RIBA; University of Reading; Arup, New Economics Foundation, Hatch Regeneris, Triangle Consulting and MHCLG.	University and professional membership body
Australian Social Value Bank (ASVB)	A tool created to measure social impact by monetizing 62 outcomes	2017	Daniel Fujiwara, Kieran Keohane, Vicky Clayton, Cem Maxwell, Maree McKenzie, Min Seto.	Private research center

Table 6: List of tools included in the sample

4.2. Assessment approach

Methodologies included in the sample have been categorized considering the high-level methodological approaches described in par. 3.1, which already underpin differences in the assessment boundaries considered, main purposes, target users, inputs needed to perform the analysis and outputs obtained. Each methodology included in the sample has been positioned on a Venn diagram including these higher-level methodologies to display the main reference approaches used.

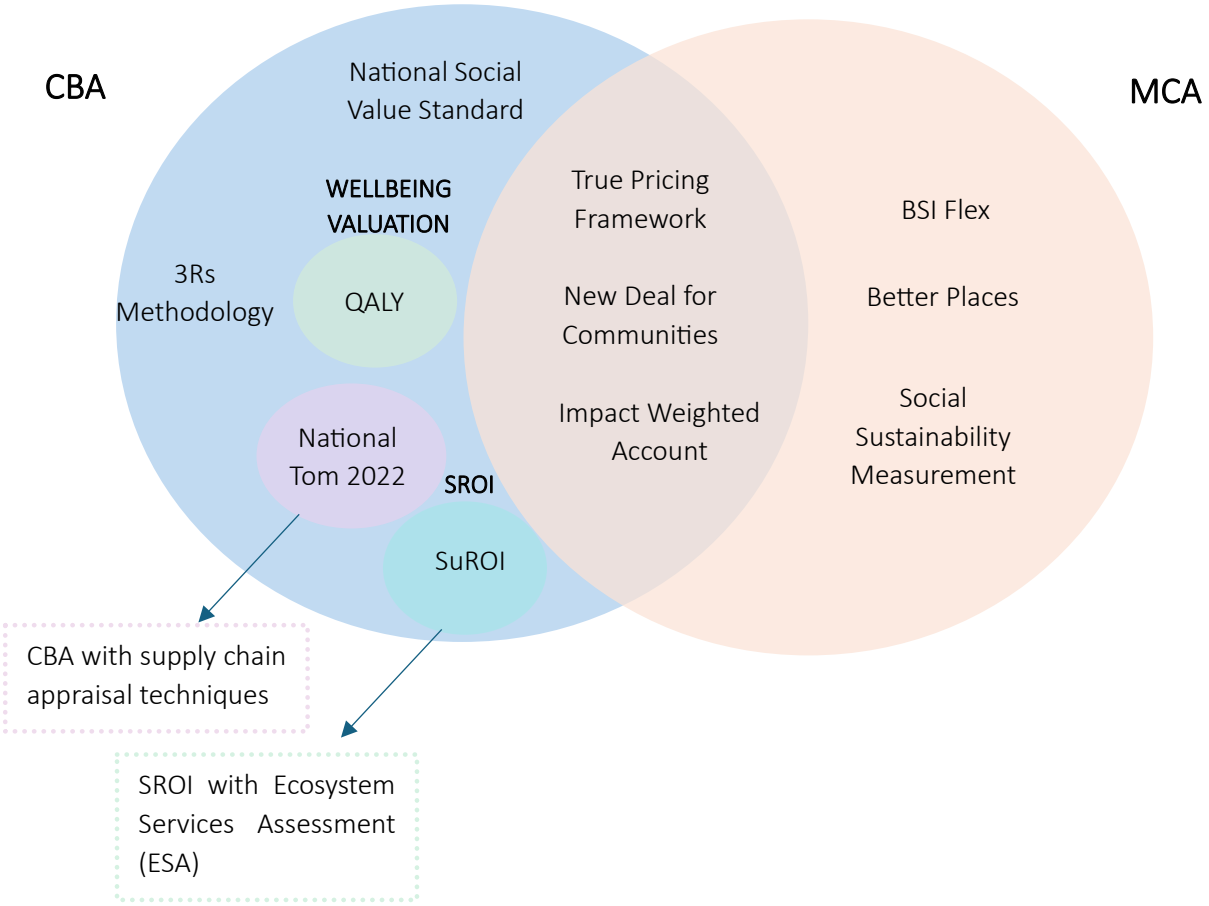

Figure 5: High level methodologies distribution across the sample (own elaboration)

The most frequent high level methodological approach in the sample is the Cost-Benefit Analysis (CBA), either as unique reference approach (in 2 out of 11 methodologies) or combining CBA with other approaches (4 out of 11). CBA is the unique reference approach for the 3R Methodology and the National Social Value Standard. CBA is used in combination with Multi Criteria Analysis (MCA) in the True Pricing Framework, in the New Deal for Communities and in the Impact-Weighted Account. Alternatively, CBA is coupled with Social Return on Investment (SROI) and Ecosystem Services Assessment in the Sustainable Return on Investment methodology, and with appraisal techniques in the National TOMs 2022.
The second most used approach in the methodology sample is the MCA, also in this case as unique reference (in 2 out of 11 methodologies) or in combination with CBA (in 4), as already discussed. In particular, MCA is the main reference approach for the BSI Flex and the Social Sustainability Measurement Framework.

4.3. Assessment scope

Methodologies

All methodologies included in the sample can be applied to urban regeneration projects. This is in line with the selection criteria adopted to form the sample, that required the methodologies to be applicable to spatial transformations. Nonetheless, three methodologies can be highlighted, as they are sector-neutral or they can be used to assess social value in several sectors. This is the case of i) National TOMs, which is applicable by any public or private organization within procurement or management process to measure and report social value, and originally was sector-neutral; over time, sector-level plug-ins have been developed, such as the real estate

and construction ones, to reflect specificities of individual sectors; ii) True Pricing Framework, which can be applied to any product or service; and iii) Impact-Weighted Accounts Framework (IWAF), which aims to integrate traditional corporate financial accounts with positive and negative social, environmental, and economic impacts of the organization; also for IWAF, a specific approach for real estate has been developed, which has been considered in this analysis.

As far as it concerns the assessment boundaries, two general trends can be highlighted. Most of the methodologies sampled considers as boundaries the geographical area of the spatial transformation to be assessed, with the possibility to include an adjacent area to assess spill-over effects. A second, more silent, trend is including the supply chain within the assessment boundaries for social value quantification. This is the case of National Social Value Standard, True Pricing Framework and National TOMs 2022 methodology.

In terms of stakeholders considered, a consistent feature throughout the sample is the recognition of the inhabitants of the regeneration site or spatial transformation as primary stakeholders. Furthermore, 8 out of 11 methodologies include local businesses as relevant stakeholders. Notably, the Impact-Weighted Accounts Framework is the only methodology that includes consumers among the stakeholders targeted. This reflects a broader perspective, that takes into consideration the services impact within the intervention area, even for those who do not reside in the project perimeter.

Among all methodologies, the temporal applicability stays consistent, as each methodology can be implemented both ex-ante and ex-post.

Overall, while these methodologies share a common objective, their differences in granularity, stakeholder focus, and supply chain considerations underscore distinct assessment scopes.

Tools

All tools consider a wide range of stakeholders. Most of them refer to all citizens as target beneficiaries of assessed social value. A few tools, like the Social Value Insight tool and the Value Toolkit, refer also to local businesses and workers among the beneficiaries. The RESVI and the RIBA Social Value Toolkit, instead, focus mainly on homeowners, tenants or users. Finally, the ASVB includes the government and Social Value Bank the exchequer, considering also the perspective of the public institutions.

4.4. Assessed components

Methodologies

In terms of social value components considered in the assessment, the sample of methodologies shows a convergence around five fundamental dimensions: social, economic, environmental, organizational and asset/space-related, consistently with the main dimensions emerged also from the literature review.

All methodologies include several components related to the social dimension. They can be broadly clustered as follows: community health, safety and wellbeing; socio-economic conditions of the community, including income, employment status, educational levels; community engagement, empowerment and civic engagement, which express the active participation of communities in decision-making processes on spatial transformations; social cohesion, sense of community and sense of ownership, including components related to social networks and relations, as well as family ties; housing affordability and habitability; accessibility to the area; and finally the availability of services for the community. The most relevant methodologies for the social dimension include the National TOMs, Better Places approach, Social Sustainability framework, SuROI, QALY and New Deal for Communities.

Most methodologies associate at least one component of social value with the economic dimension. Among the main components assessed, they can be clustered in: employment, considering specifically job creation associated with regeneration; skills development and training; economic growth and productivity; costs and savings for the government and households; promotion of local entrepreneurship. The most relevant

methodologies for the economic dimension include the National TOMs, the National Social Value Standard, and the BSI Flex.
Furthermore, all methodologies show several components within the environmental dimension, which can be clustered into: environmental quality within several environmental matrices (e.g. air, water, soil, light, noise); sustainable energy, sustainable mobility and GHG emission reduction; resource efficiency, with reference to circular processes, waste management, water and other resources consumption; nature preservation and green spaces management, with specific reference to biodiversity and ecosystem services; climate change adaptation; and finally topics related to environmental awareness and environmental risks management. The most relevant methodologies for the environmental dimension include the National TOMs, the National Social Value Standard, Better Places approach, True Pricing, IWA and BSI.
The fourth dimension, "organizational", refers to components which can be assessed within the perimeter of the organizations involved in the urban regeneration projects. Such components can be clustered into: working conditions of employees; labor rights; employee wellbeing and health; workforce training; and workforce diversity. This dimension also comprises components related to responsible, sustainable and ethical management of the organization and the supply chain, including responsible procurement. The most relevant methodologies for the organizational dimension are the National TOMs, National Social Value Standard and IWA.
The last dimension is related to assets and spaces characteristics. This dimension focuses on the assessment of asset resilience, asset attractiveness, place identity, asset sustainability certifications and the integration of the project within the social environment of the city. The most relevant methodologies for the asset/space dimension are the Social Sustainability framework and New Deal for Communities.

Tools

Similarly, the components within the sample of tools were analysed taking into account the five main dimensions identified from the literature review and within the methodologies sample. The assessed components mostly overlap with the same identified in the methodologies sample, with some additional peculiarities.
Most tools cover the social dimension, including among the main components health, safety, social relations and community empowerment and engagement. The most relevant tools for these components comprise the Built Environment Bank, the Social Value Calculator, RIBA Social Value Toolkit and ASBV tool.
Most tools include aspects related to the economic dimension, almost totally focused on employment. The Built Environment Bank, the Social Value Calculator and ASVB are the most relevant tools in this case.
Compared to methodologies, the environmental dimension within the tools seems to be less developed and includes less topics, covering components related to energy, sustainable mobility, waste and circularity, biodiversity. Also for this dimension the most relevant tools are Built Environment Bank and the Social Value Calculator.
The organizational dimension is almost completely focused on the supply chain, with Built Environment Bank and Social Value calculator as the main tool.
Lastly, the asset and spaces dimension is the least present within the tools, and appears only in the Built environment Bank.
Considering the tools' peculiarities, the RESVI toolkit defines social value around four areas, which are work, economy, community, and planet, with a possible addition of a fifth one regarding innovation. Similarly, the Social Value Insight toolkit uses a broad perspective in which social value is assessed against the themes of local environment, supply chain, and local employment construction. Differently, the Value Toolkit uses a subdivision of social value components in produced capital, human capital, social capital, and natural capital. Finally, RIBA toolkit and ASVB integrate the psychological dimension in social value assessment.

4.5. Indicators

Most methodologies and tools define and apply a set of indicators to measure and score social value across spatial transformation projects. The following indicator analysis refers to 8 methodologies (National TOMs, National Social Value Standard, Better Places approach, Social Sustainability, IWA, SuROI, BS BSI Flex 390, QALY and New Deal for Communities)[2] and 4 tools (Built Environment Bank, Social Value Calculator, RIBA Social Value Toolkit, ASVB Calculator).

Methodologies

Within the sample of methodologies, 534 indicators[3] were identified. The most frequent topics measured by indicators refer to the organizational dimension and include Workforce diversity (92 indicators), due to a relevant number of indicators on this topic within the National TOMs; Inclusive workplaces (28 indicators) and Employee working conditions (24 indicators). Employment, within the economic dimension, also emerges as a relevant topic with 26 indicators. GHG emissions are the topic with most indicators (13) within the environmental dimension (Figure 6).

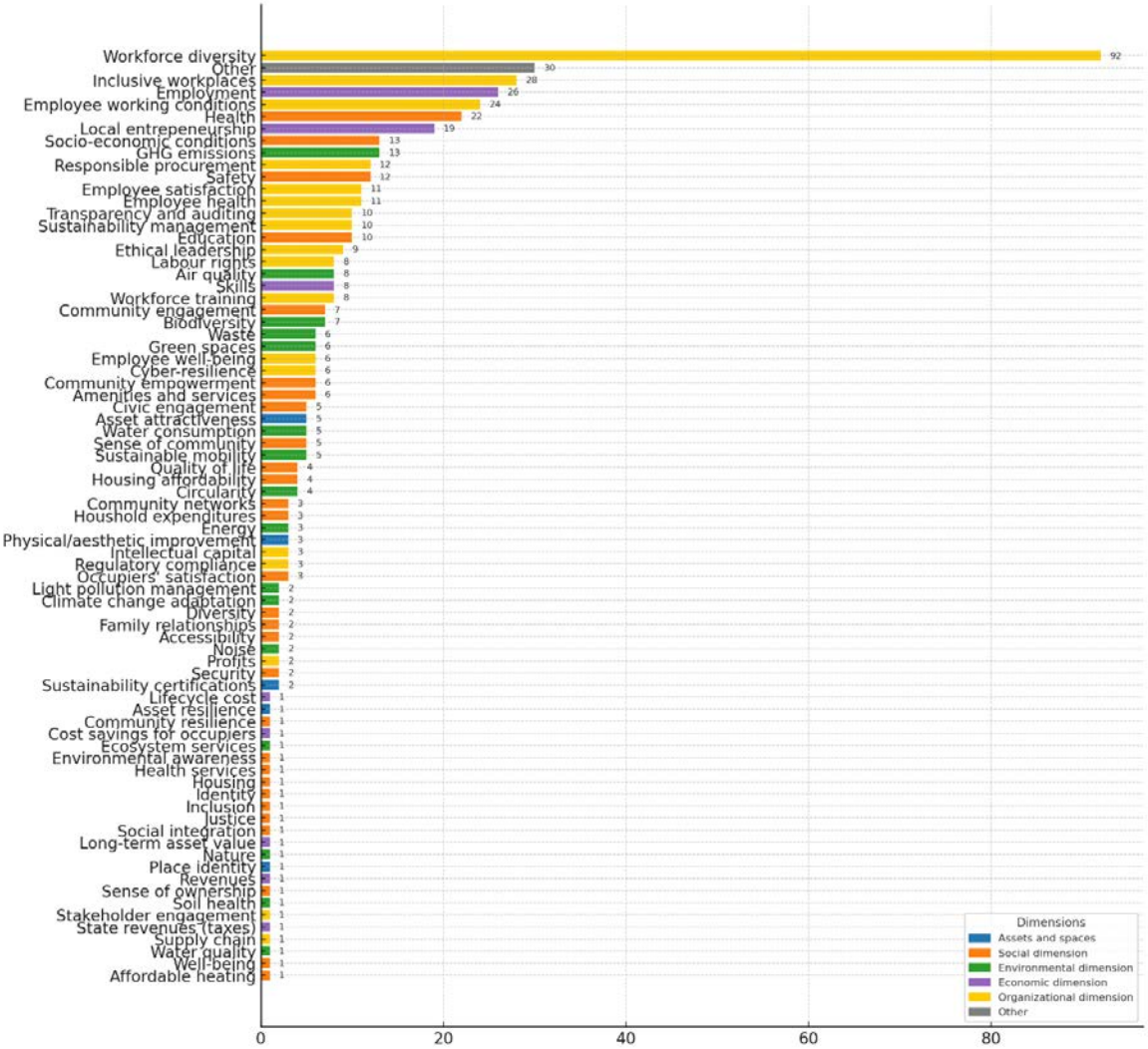

Figure 6: Categorization of methodologies' indicators – recurrence in absolute number (own elaboration)

[2] 3R Guidance was not included as it provides suggestions on the possible indicators that could be used, but does not define a common set across 3R interventions. For the BSI Flex, the "value categories" have been considered in the indicator analysis.

[3] For the National Social Value Standard, monetized indicators were not included because alone they amount to 1,300 metrics (consistently larger than the total set of indicators extracted from all other methodologies considered), so it would have affected the overall analysis.

About 25% of indicators is monetized, meaning that they are attached to or could be attached to a monetary value. The majority of indicators does not have a monetary value attached.

Tools

Within the sample of tools, 115 indicators were extracted and analysed. The most frequent topic measured by indicators refer to the economic dimension and includes Employment (19 indicators), followed by social and organizational dimension: Health (18 indicators), Supply chain (12 indicators), Safety (11) and Education (6). Environmental indicators appear to be few in number, but distributed along a variety of topics (Sustainable mobility, Circularity, Waste, Energy, Environmental risks, GHG emissions, Nature and Noise).

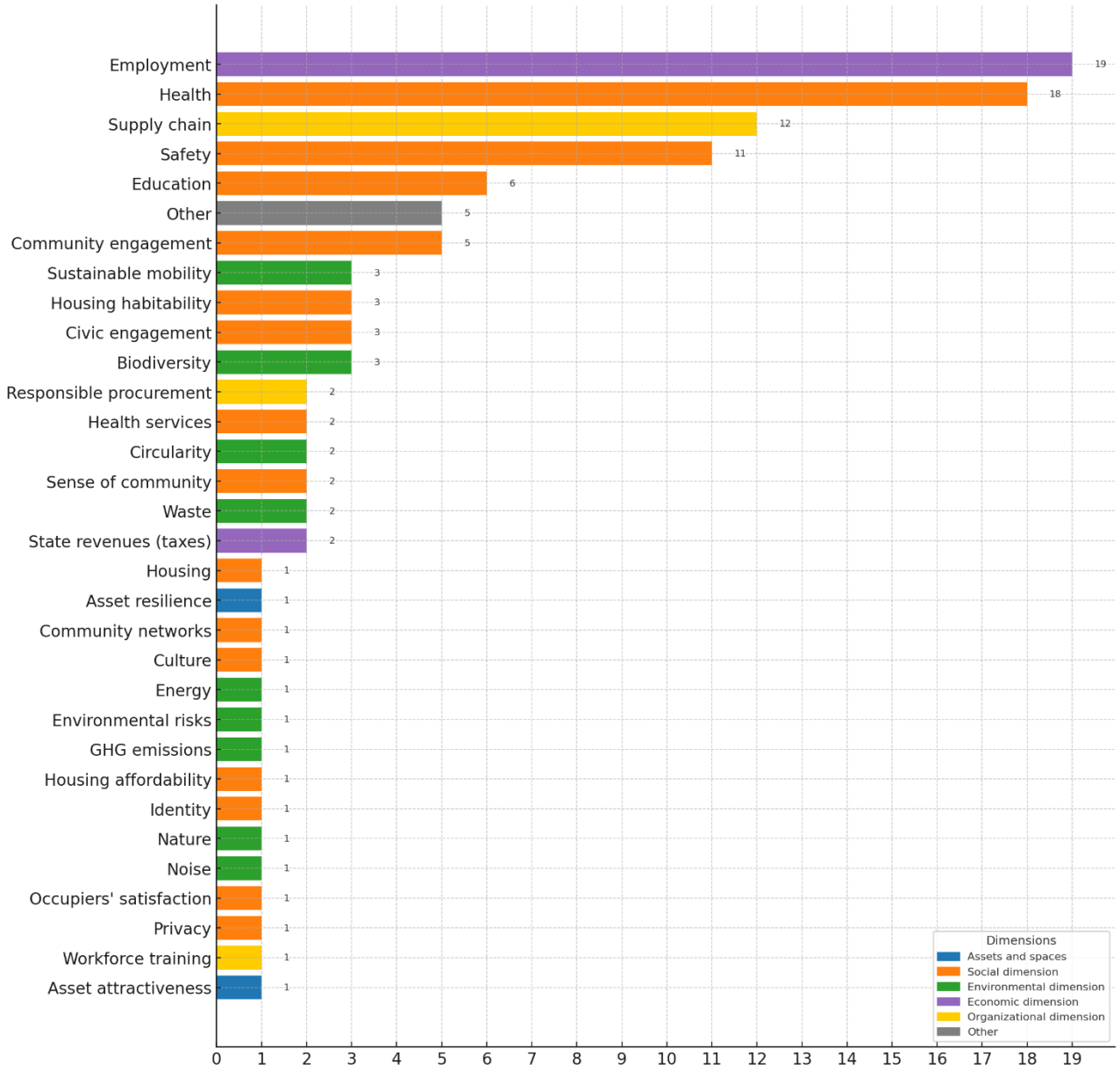

Figure 7: Categorization of tools' indicators – recurrence in absolute number (own elaboration)

Within the tools, almost the totality of indicators is monetized. This depends on the fact that all tools included in the indicator analysis allow for social value monetization.

4.6. Baseline definition and adjustments

Methodologies

To grant an accurate impact measurement, some methodologies stress the necessity of defining a **baseline** against which social value changes should be measured. Nonetheless, the guidance provided on how the baseline should be defined varies in terms of scope and details. For example, methodologies such as the True Pricing Framework, Impact-Weighted Accounts Framework (IWAF), and Sustainable Return on Investment (SuROI) define the baseline as the current state of environmental and socioeconomic conditions prior to the intervention, using it as reference point for quantifying change. Another perspective is offered by the Social Sustainability Measurement Framework and the Better Places Approach, which rely on baselines derived from survey information to stress that initial conditions should integrate quantitative and community-based inputs. In some methodologies the baseline definition is required only for specific indicators, such as in the National TOMs 2022, or mentioned in relation to the measurement of metrics, such as in the BSI Flex.

A specific case regards the New Deal for Communities approach, as its assessment was specifically performed on the 39 deprived English neighborhoods that were involved in the programme and received funding for the implementation of local partnerships. A baseline was established in 2022 across all 39 NDC areas by means of a survey questionnaire, considering sociodemographic, status, and attitudinal aspects across the outcome areas where the NDC programme focused on (Lawless, 2011). So, the programme could rely on a common baseline framework for all the assessed areas. The survey was repeated in 2004, 2006 and 2008. Furthermore, the survey was administered to areas with comparable conditions, but out of the regeneration programme scope to provide a counterfactual scenario ("without the NDC regeneration programme") to compare the NDC areas with and assess the net impact of the programme (ibid).

Despite all these methodologies anchor their assessments to pre-intervention conditions, methods span from more general socioeconomic benchmarks to highly specific data- and community-informed baselines, reflecting their different operational focuses and contexts they seek to address.

Another crucial aspect to be looked at in the analysis is how the sampled methodologies demonstrate **additionality**. When this concept is implemented in the methodology, it helps isolate the benefits arising directly from the project intervention from those that would have occurred regardless. Only some methodologies address additionality in a specific way. An example of this is the National TOMs 2022 which proposes a "general presumption of additionality" within its measures. This implies that all measures of the National TOMs refer to aspects that are considered to be additional, and no measures that regard aspects already required by law, such as health or safety, are included in the assessment. Likewise, the National Social Value Standard 2024 offers clear guidance on additionality, addressing factors such as the duration of outcomes and optimism bias. Duration of outcomes refers to the fact that the duration of the project effects might be different than the duration of the project itself, so adjustments to the outcome values can be made on a project basis. Optimism bias alludes to the tendency to underestimate the costs and overestimate the benefits of a project. The N SVS suggests applying adjustments to take into account such bias. The NSVS highlights also risks of double counting, which are flagged within the metrics' descriptions to mitigate overestimation of impacts.

Another approach to evaluating additionality is the one proposed by the True Pricing Framework, the Impact-Weighted Accounts Framework (IWAF) and the QALY-Based Wellbeing Valuation Methodology, which emphasize externalities and incremental benefits relative to baseline conditions, focusing on the added value generated by specific interventions. The Sustainable Return on Investment (SuROI), instead, aligns closely with the traditional definition of additionality as it assesses whether outcomes would have occurred without the intervention. The 3R methodology formalizes this concept by quantifying net additional impact as gross impact minus baseline impact, leakage, and displacement. The application of this formula enables a clear analytical model for additionality assessment. Finally, the Better Places Approach and the Social Sustainability Measurement Framework do not explicitly take additionality into consideration.

Overall, while most methodologies explicitly address additionality to varying extents, their approaches range from highly structured to more general and implicit.

Another important aspect of the analysis is **attribution**, namely the way by which each methodology attributes observed outcomes to individual interventions. Most methodologies provide guidance on how to address this issue, with varying levels of details. Among them there is the National TOMs 2022, which distinguishes between the measures where deadweight has been embedded into the proxies and those that require additional calculations. The guidance on National TOMs 2022 points out that attribution needs to be accounted for through some "pathway-building", especially while setting target evaluations in procurement, so that measured impacts are linked back to a contract. Pathways creation, in this case, refers to a structured approach used to create and assess social value over time. For example, a company aiming to enhance local employment opportunities for disadvantaged groups may partner with training providers to deliver targeted skills programs. Through this structured approach, individuals gain relevant certifications, increasing their chances of securing stable employment. By linking inputs, activities, outputs, and outcomes, this pathway improves economic inclusion and supports broader community development, demonstrating a clear progression from intervention to impact. These detailed steps allow for an optimal alignment between measurement and contractual obligations.

Instead, the National Social Value Standard 2024 proposes that the entire impact of a given intervention or project should be attributed solely to that project. The method of attribution used in the NSVS involves not only direct impact measurement but also the consideration of factors such as deadweight—impacts that would have happened regardless of the intervention.

From the analysis it emerges that the True Pricing Framework and SuROI methodologies prefer to focus on isolating how the intervention contributes to the outcome. This means being able to determine how much of the observed outcome can be attributed to the intervention itself, given that the outcome depends on the intervention's occurrence. The True Pricing Framework actively assesses which actors are directly responsible, and SuROI considers the contribution of projects with specific outcomes, both aligned with traditional notions of attribution in impact measurement. The 3R Interventions Framework also describes what each intervention contributed, relying either on qualitative or case-based approaches.

Other methodologies, such as BSI Flex, to some extent, attempt to be more qualitative in their approach to attribution. BSI Flex foresees the use of stakeholder mapping and influence analysis, to understand which actors or interventions contribute most to specific outcomes. Similarly, the QALY-Based Wellbeing Valuation Methodology connects outcomes to assessed projects, giving a structure for attribution specific to wellbeing and health impacts. The New Deal for Communities (NDC) takes a more empirical approach, using panel data and benchmark comparisons to analyze attribution. Finally, attribution is not specifically addressed by the Social Sustainability Measurement Framework, the Better Places Approach, and the Impact-Weighted Accounts Framework (IWAF).

The variations in attribution analysis underscore differences in the intended use cases, balancing practical implementation with analytical rigor.

A further issue to be considered in the comparative analysis of methodologies is **displacement**, which refers to the unintended redistribution of impact. This is a critical factor as it refers to how the benefits or outcomes of a project or intervention might shift or replace existing activities, rather than generating additional value. The assessment of value displacement varies consistently across the sample both in specificity and depth. That is, some frameworks provide detailed guidance for incorporating displacement into impact measurement, while others address it tangentially or omit it altogether.

For example, the National TOMs for 2022 considers displacement in detail with a context-sensitive approach. It emphasizes that displacement can significantly influence the quality of social value metrics, particularly in complex environments where the redistribution of impact might obscure the true net effect of an intervention. Similarly, the National Social Value Standard in 2024 recognizes the role of displacement factors. However, its approach differs in that it broadens the calculation of deadweight from a national to a local level. While this shift aims to provide a more granular understanding of impact, it also reduces the relevance of displacement in the overall assessment. This is because, at a local level, the redistribution of impact may be less pronounced

or harder to isolate, making displacement a less critical factor in the calculation of social value. Consequently, while the NSVS acknowledges displacement, its methodological shift diminishes its practical significance in the evaluation process.

The True Price Framework, Impact-Weighted Accounts Framework (IWAF), and Sustainable ROI (SuROI) incorporate displacement issues under a broader analysis of externalities. The True Price Framework and IWAF assess if an organization's activities, whether generating positive or negative impacts, redirect or displace these impacts across regions or populations. For instance, they evaluate if the benefits or costs of an intervention in one area might unintentionally shift to another, thereby redistributing rather than resolving the impact.

On the other hand, SuROI takes a more nuanced approach by examining whether the observed effects of an intervention have been genuinely mitigated or merely shifted elsewhere. This methodology emphasizes the importance of addressing the root causes of issues rather than allowing interventions to displace problems without achieving meaningful resolution. By doing so, SuROI ensures that the measured outcomes reflect real progress rather than the redistribution of impacts.

Some methodologies adopt a more qualitative or flexible approach to displacement. For example, the 3R Interventions Framework examines redistribution impacts through multi-regional analyses, combining both qualitative and quantitative data to address spillover effects. While it does not rely on formal linear equations, this framework acknowledges the complexity of displacement situations in both regional and cross-regional contexts. Its strength lies in its ability to capture the nuanced and interconnected nature of displacement, particularly in cases where impacts extend beyond immediate project boundaries.

Similarly, the QALY-Based Wellbeing Valuation Methodology implicitly addresses displacement when it examines negative externalities existing outside project boundaries. By focusing on unexpected consequences, this methodology highlights how interventions might inadvertently shift burdens to other regions or populations, even if the primary project area shows improvement. This approach underscores the importance of considering broader systemic effects when evaluating the true impact of interventions.

Other methodologies and approaches, such as the Social Sustainability Measurement Framework, address displacement primarily in terms of regeneration effects. This means that the framework focuses on how the revitalization or renewal of a specific area (e.g., through urban development, infrastructure projects, or community programs) might lead to the displacement of existing populations, businesses, or social structures. For example, regeneration efforts aimed at improving living conditions or economic opportunities in a disadvantaged area might inadvertently push out current residents or small businesses due to rising costs or changing demographics. The New Deal for Communities (NDC) acknowledges displacement but does not explicitly measure it in most analyses. Finally, the Better Places Approach and BSI Flex do not explicitly address displacement.

In summary, while methodologies such as National TOMs 2022, National Social Value Standard 2024, and True Pricing Framework incorporate displacement explicitly and with varying levels of detail, others, including 3R Interventions and QALY-Based Wellbeing Valuation Methodology, address it indirectly, partially, or omit it. These variations underscore the importance of aligning displacement assessments within the different methodological approaches.

Tools

As for the methodologies, a part of tools identified to assess social value in spatial transformations may adopt a counterfactual scenario to determine the impact of a defined project beyond what would have occurred naturally. Nonetheless, not all tools adopt a **baseline** scenario. The Social Value Insight, the Australian Social Value Bank (ASVB) and RIBA Social Value Toolkit explicitly define a baseline condition for their tools. The most detailed tool about this aspect is the Social Value Insight which incorporates this concept through the comparison of the impacts generated by a project with the same area conditions in the absence of such project.

The Social Value Calculator mainly addresses additionality by referring to its reference methodology, which is the National Social Value Standard. In contrast, the RESVI and Value Toolkit do not specify a structured approach to counterfactual analysis.
Similarly to the baseline scenario, not all tools take into consideration the theme of **additionality** in their computations. Especially, RESVI, the Value Toolkit and RIBA tool do not include any information about this issue. Nevertheless, the remaining tools of the sample cite in different ways the struggle of computing additionality for social value assessment. Namely, the Social Value Insight, ASVB and the Social Value Calculator all address additionality with sophisticated methodologies. For example, in the Social Value Insight additionality is considered in conjunction with deadweight (i.e., what would have happened anyway) and displacement. The tool also includes considerations of regulatory requirements, specifically mentioned for one indicator.
Mirroring the additionality assessment distribution, the **attribution** assessment is considered only by 3 tools out of 6. The Social Value Calculator for example mentions the attribution assessment only for some metrics, following the methodology it is based on. Specifically, it gives attribution metrics about employment rates and community health levels. The RIBA Toolkit, instead, accounts for attribution and deadweight following the Social Value Bank and through specific questions in the questionnaire.
Differently tfrom the previous sample, both the Social Value Insight and Social Value Calculator tools consider displacement by factoring in potential shifts in benefits from one group or area to another. This is typically assessed by evaluating whether the value generated by a project simply replaces existing services or resources, rather than creating new value.

4.7. Social value calculation

Methodologies

Different methodologies possess divergent yet overlapping calculation approaches. A core similarity across the analyzed methodologies consists of tracking both economic and social benefits, which typically entails monetizing outcomes and analyzing net impacts. The National TOMs 2022 and the National Social Value Standard 2024 both apply structured frameworks of valuation. The National TOMs 2022 differentiates “social value” and “local economic value”. Social value is calculated for each measure and then summed up. For some measures, instead of social value, "Local economic value" is calculated, which is considered different because it affects the local community and not society in general. Proxy values can regard input, output, outcome or impact. The proxy type is chosen according to the evidence available. Only the value additional to the commercial or financial value is included. Furthermore, the methodology allows for the use of multipliers such as LM3 and SROI, which need to be verified by a third party and transparently declared.
The Social Value Standard 2024, instead, complies with the Green Book's recommendations, which emphasize a cost-benefit analysis (CBA) approach. In the calculation, social value includes: i) economic net benefits, namely the gross operating surplus (income to shareholders) and wages (income to workers); ii) external net benefits to society, which include individual net benefits reduction in government expenditure. GVA (Gross Value Added) and LM3 are not included, as recommended by the Green Book.
Other specific methodologies such as Impact-Weighted Accounts Framework (IWAF) and Sustainable Return on Investment (SuROI) integrate financial principles into social valuation. Among the methodologies, the IWAF infuses results into financial accounts. It monetizes social and environmental impacts embedding them into financial accounts to provide a holistic view of an organization’s performance. The SuROI, on the other hand, uses net present value (NPV)-oriented calculations for analyzing long-term returns. In contrast to this, methodologies like the Social Sustainability Measurement Framework and the NDC methodology adopt a calculation approach based on comparative statistical analysis and benchmarking. They both utilize national datasets and household model comparisons to calculate social impacts, utilizing regression models to isolate causal effects.

The BSI Flex methodology uses scorecards with weighted indicators to calculate the total social impact added by a project. Measurable indicators are defined for each outcome; weights are assigned to value categories based on stakeholder priorities. Weighted scores are then aggregated using the structured scorecard. The weighted scoring system is aligned with the four capitals approach (natural, social, human, and produced). The QALY-based Wellbeing Valuation Methodology employs an equally weighted approach to assess specific individual wellbeing factors. It uses monetary values as proxy and assigns them to indicators like mental health outcomes to quantify their impact on their overall wellbeing. On the contrary, the True Pricing Framework considers only remedial costs when performing assessments, where the scope of performance tends to be driven by economic implications arising from unsustainable practices rather than net benefits.

In spite of these differences, most methodologies converge ultimately on the principle of attributing measurable value to social and economic change, albeit through varied computational and conceptual lenses. Successive review and meta-analysis of data garnered on methodologies show a strong trend towards quantifying and monetizing social value. Both National TOMs 2022 and National Social Value Standard 2024 adopt social value monetization. However, the latter incorporates a social value ratio (net present benefits over net present costs) to align with to cost-benefit analysis principles. While National TOMs aligns reporting with predefined time frames, the National Social Value Standard allows user-defined time horizons, applying discounting when necessary to reflect long-term impacts.

Some methodologies, such as True Pricing, IWAF, SuROI, and BSI Flex, also embed social value assessment combining quantification and monetization to underscore financial measurement of social impact. However, the Better Places Approach allows for the opposite, where credibly alternative tracking of qualitative outcomes is more important than strict monetization and reflects a paradigm shift from measuring outputs (such as number of jobs created) to assessing long-term improvements of quality of life. A similar emphasis can be seen within the QALY-Based Wellbeing Valuation Methodology, which links wellbeing indicators to interventions through QALY-based monetary values. In contrast to 3R Interventions, the NDC approach seeks to quantify social and economic change without always framing results strictly in monetary terms. Comparative statistical analysis was developed to evaluate the NDC programme results, leveraging benchmarks at both national and local levels to assess net impact.

Overall, the methodologies can be broadly grouped as follows into: those embracing a monetary backing (for example, National TOMs 2022, National Social Value Standards, IWAF, and SuROI) with a focus on quantitative, and those highlighting qualitative or mixed-method impact assessments (such as Better Places, NDC, and QALY).

The description of the underlying calculation approach and final outputs from the methodologies are provided in Annex 3.

Tools

The computation method used is a crucial factor in the tools examined. Although not all tools provide the same level of details about the calculation process, some conclusions can be made. The structure and scope of the social value tools' calculating methods differ. For every outcome, Social Value Insight displays three different values: Net Business Value, Net Individual Value, and Net Exchequer Value. This enables the impact assessment to be somewhat differentiated based on the beneficiary. Notably, it acknowledges the complexity of some outcomes by taking into account negative values, such as those from ethical timber production. RESVI, on the other hand, does not outline how it calculates.

According to the same methods described in its framework, the Social Value Calculator divides values into economic, social, and environmental categories for every metric. This technique ensures a thorough effect analysis by taking adverse consequences into account as well. Because early-phase estimates are more speculative and some outcome drivers may only be relevant at specific points of the project lifecycle, the Value Toolkit recognizes that value measurement will vary across project lifecycle phases. Using a methodical

approach, the RIBA Social Value Toolkit calculates social value from survey results, which are then examined to generate average scores. These ratings are then projected over the anticipated project lifespan after being corrected for deadweight and attribution.
The description of the underlying calculation approach and final outputs from the tools are provided in Annex 3.

4.8. Reporting

Methodologies

The methodologies chosen for investigation differ in reporting mechanisms regarding format, detail level, and integration of qualitative versus quantitative insights. While National TOMs 2022 and National Social Value Standard 2024 do not specify reporting formats, most other frameworks take on a blend of reports, scoring systems, and visuals tools to represent the key results and outputs of their assessments.
A subset of the methodologies incorporates a scoring mechanism along with reports to allow for standardized criteria for assessment against the more detailed narrative reporting. Some of these reports incorporate financial ratios, such as ROI and SuROI, or impact-adjusted financial statements to reinforce a monetization-driven perspective of reporting. In contrast, Better Places Methodology and 3R Interventions present a distinctive feature, as they incorporate interactive maps to visually spatialize social value outcomes.
Frameworks like the New Deal for Communities (NDC) adopt a multi-method approach that combines quantitative results with qualitative case studies to offer a comprehensive assessment. Similarly, the Better Places Approach favors qualitative reporting on outcomes rather than assigning standardized outputs' metrics.
In short, three main reporting models have been identified: (1) Report with a focus on monetization, scoring with financial indicators (e.g., IWAF, SuROI, True Pricing); (2) Report with a spatial and interactive touch through the use of maps enhancing accessibility (e.g., Better Places, BSI Flex, 3R Interventions); and (3) Report from a mixed-method view, an integration of qualitative and quantitative that allows for a more comprehensive account of the impact (e.g., NDC).
All in all, these heterogeneities reflect tensions between standardization, contextualization, and the balance between numerical quantification and qualitative depth in social value reporting.

Tools

Analyzed tools under investigation differ in reporting mechanisms, in terms of format, detail level, and integration of qualitative and quantitative information.
Although no additional information is given about the reporting approach, Social Value Insight creates reports using the ESG and SDG frameworks. A data pack for additional analysis and attribution, a portfolio report that deepens the analysis, and an asset report that highlights local social value per asset (confirmed by a third party) are all part of RESVI's extensive reporting suite. Furthermore, RESVI offers practical suggestions and is in line with GRESB's BC1.2 Building Certification. Flexible reporting is made possible by the Social Value Calculator, which exports data to Word, Excel, and PDF formats. Its real-time dashboard facilitates tracking, comparison, and reporting while allowing users to align values with multiple frameworks, including the Social Value Model, TOMs, SDGs, Four Capitals, and the National Social Value Standard. The reporting systems of the Value Toolkit, RIBA Social Value Toolkit, and ASVB are not specified in the retrieved documentation. While some tools offer little to no information on how reporting of results if performed, others, like RESVI and Social Value Calculator, offer more comprehensive and configurable reporting choices.
Tools in the sample vary in the form in which they present results and give access to outputs. While some tools like RESVI TM and the Social Value Calculator provide accessible results, the ASVB excels in offering easily accessible and versatile output formats, highlighting a more user-friendly approach to social value reporting. More in detail, the RESVI collects projects' results in a series of reports titled "Our Social Value in Real Estate". Nonetheless, the fruition of such report is usually backed by a membership application and is available only to subscribers. Similarly, the Social Value Calculator uploads on its website case studies and essential information

about the tool. On the contrary, the Australian Social Value Bank, provide data in CVS format via the online platform granting to the public free access to a good level of information. Other tools like the Value Toolkit and the RIBA Social Value toolkit do not specify fruition methods of their outputs and do not promote explicitly a membership program.

4.9. Case studies

This section provides a set of case studies to show how the methodologies and tools under analysis have been concretely applied to real regeneration projects. Case studies were selected to represent different methodological approaches (i.e. CBA, MCA, SROI), results and geographical locations. Providing examples out of UK proved difficult, as most approaches analysed in the paper and their applications were developed mainly in the country.

Source	Case study name	Location	Project type	Methodology/Tool	Methodological approach	Assessment timing
Bichard (2015)	City Entrance Integrated Program (PIEC)	Porto Alegre, Brazil	Regeneration of irregular settlements (favelas)	SuROI	SROI	Ex post
Hayball (2024)	Redfern Place	Sydney, Australia	Regeneration of existing buildings	Australian Social Value Bank (ASVB)	CBA	Ex ante
Sefton Council (2023)	The Strand	Bootle, UK	Regeneration of a shopping centre	RESVI	CBA + assessment of property market value	Ex post
Batty et al., (2010)	Hartlepool Area Remodelling Project	Hartlepool, UK	Delivery of a Community Housing Plan	New Deal for Communities	MCA	Ex post
University of Reading & Social Life (2021)	South Acton	London, UK	Regeneration of a social housing estate	Social Sustainability Measurement Framework	MCA	Ex post

Table 7: Overview of case studies

4.9.1. City Entrance Integrated Program (PIEC), Porto Alegre

Project description

The **City Entrance Integrated Program** (**Programa Integrado Entrada da Cidade – PIEC**) is an urban regeneration initiative launched in 2002 in Porto Alegre, Brazil by the City Council and financed by the Habitar Brasil/IDB programme (Miron & Formoso, 2010). PIEC aimed to relocate 3,775 families from *favelas*, informal settlements along the city's entrance highways, into newly developed public housing units with integrated urban infrastructure and social services.

These informal settlements faced severe socio-environmental challenges, including inadequate sanitation, lack of essential utilities (water, energy, sewage), high crime rates, low employment opportunities, and limited access to social services. The programme was led by the Porto Alegre City Council and involved private partners hired by the Council (namely social work service providers and construction companies). The development was guided by citizen input through a Participatory Budgeting process, ensuring that interventions aligned with community needs.

To address these challenges, the programme delivered 10 projects over 10 years, among which 5 separate housing estates. It provided comprehensive urban infrastructure, including sanitation, sewage systems, and

paved roads, significantly improving living conditions. Three healthcare clinics were established, serving 410 households. Additionally, a new pre-school facility was built and a school was renovated, benefitting 200 households with school-aged children. The programme also developed public parks, green spaces, and recreational areas with a total extension of 5,138m^2, fostering social interaction and leisure activities. To improve economic welfare, training programmes were implemented, equipping residents with new skills and improving job prospects. Furthermore, three new community centres were established to encourage democratic participation and strengthen community engagement.

Methodology

To assess the programme's impact, a **Sustainable Return on Investment (SuROI) analysis** was conducted ex-post by Professor Erik Bichard on behalf of the Royal Institution of Chartered Surveyors to assess the social value generated by the programme. As in the project's development phase, citizen participation played a crucial role in shaping the SuROI indicators and proxies (Bichard et al., 2015).

A survey conducted in 2013 across three PIEC estates gathered residents' perceptions of the programme's impact on their quality of life. The survey results were used to identify the most significant changes experienced by participants, which then informed the selection of indicators and proxies for the SuROI calculation. These indicators measured improvements in employment, education, health, safety, community cohesion, and access to green spaces.

The monetary valuation of these indicators was based on a combination of public sector data sources, local market prices and academic literature. For example, the economic value of ecosystem services was estimated using data from The Economics of Ecosystems and Biodiversity (TEEB) database. The calculations were made over a 10-year period.

Key results

The analysis shows the intervention to be successful. The final SuROI value for the PIEC development was calculated at 26.8: meaning that for every £1 invested, £26.8 of social and environmental value was generated. The net present value of the project's social and environmental benefits was £ 33,905,357.

However, the SuROI estimate for ecosystem services alone was 0.72. This low return reflects the lack of maintenance and upkeep of communal green spaces reported by survey respondents. It is also important to note that no adjustments for time or inflation were applied to these values.

While the provision of physical infrastructure led to notable improvements in living conditions, the analysis also highlights the impact of social interventions such as employment training, education access, and healthcare services. For example, the employment training programmes contributed to 167 household heads securing formal employment, generating an adjusted social value of £4,098,928 over ten years (Table 8). These findings indicate that both physical and social interventions played a role in shaping the overall outcomes of the project.

The SuROI calculation encountered a number of challenges, highlighting broader difficulties in quantifying social and environmental impacts within urban regeneration projects. One of the primary obstacles was the technical and resource capacity required to collect empirical data and analyse diverse information from both primary and secondary sources. Integrating social and environmental factors into a financial framework demanded specialist expertise in data handling and impact assessment.

Another key limitation was the lack of consistent stakeholder engagement and post-occupancy monitoring. While community input played a crucial role in shaping the initial project design, long-term data collection to assess the full impact of the interventions was inconsistent. Without structured follow-up assessments, capturing the ongoing benefits and challenges faced by residents proved difficult. Strengthening post-implementation evaluation frameworks and ensuring sustained stakeholder involvement would significantly improve the reliability and depth of SuROI assessments in future projects.

Stakeholder	Predicted changes/ Outcomes	Inputs (Nature of Project)	Inputs (Monetary Value in $USD)	Outputs
Residents who have moved from unplanned housing to PIEC estates including Progresso, Vila Technológica and Pôr do Sol	Residents have improved job prospects	Economic welfare (skills and training) programmes	$4,632 (unit cost of training sessions - estimate based on pre-build budgets)	20 programmes delivered to date
	Residents have access to (better) childcare and pre-schools	New childcare premises	$83,810(estimate for new pre-school facility on the Mario Quintana lot)	1 new pre-school facility serving 200 households with young children
	Residents have access to (better) schools	New schools/school rooms/teachers	$28,356 (Estimate for extension to Antonio Giudice school)	1 modified school serving 200 households with school children
	Residents have better access to parks and gardens	Communal open space and green space	$13,387 (One-off maintenance costs for Mascarenhas Park and $51,000 for landscaping the three estates (estimate)	Four open space projects for 410 households
	Residents experience improvements to health	More and better health clinics	$280,000 for the construction of three additional health clinics, and $170,000 per annum over 10 years for additional staff	Three clinics serving 410 households
	Fewer community disputes and more democratic demands made through the Participatory Budget process	New community centres built and community workers employed	$8,755 per community centre and $102,000 per annum for community workers salary over 10	3 community meeting rooms and 6 community workers serving 410 households
	Residents are better sheltered and more secure in new housing	New houses and infrastructure including drainage, sewage and street cleansing	$463,590 (construction only) and $93,500 per annum in street and drainage maintenance over 10 years	Improvements for approx. 1,640 people

Table 8: Selected findings for the resident stakeholder group in the PIEC development – Porto Alegre (Source: Bichard et al., 2015)

Predicted Change or Outcomes	Inputs (Nature of Project)	Inputs (Monetary Value in £/ GBP)	Outputs	Indicator	Quantity	Proxy	Value	Gross Social Value over 10 years	Impact after Adjustments
Residents have improved job prospects	Economic welfare (Skills and training) programmes	£2,725 The unit cost of training sessions - estimate based on pre-build budgets.	20 programmes delivered to date	Improvement to working status	167 household heads become formal workers	Annual average income	£6,136.23 IBGE.gov.br	£10,247,320	£4,098,928 (minus 60% for deadweight and displacement from informal employment)
Residents have access to (better) childcare and pre-schools	New childcare premises	£49,300 The estimate for new pre-school facility on the Mario Quintana lot.	1 new pre-school facility serving 410 households with young children	Improvement to working status	75 people are able to find part-time work (E)	Annual average income	£6,136.23 IBGE.gov.br	£2,301,086	£920,435 (minus 60% for deadweight and displacement from informal employment)
Residents have access to (better) schools	New schools or rooms and more teachers	£16,680 (Estimate for extension to Antonio Giudice school)	1 modified school serving 410 households with school children	Improvement to working status	25% of 820 children find jobs (2011 – 2013)	Annual average income	£6,136.23 IBGE.gov.br	£3,773,781	£1,509,512 (minus 60% for deadweight and displacement from informal employment)
Residents experience improvements to health	More and better health clinics	£165,000 for new health clinics, £200,000 per annum over 10 years for additional staff (E) and £55,000 per annum in street and drainage maintenance over 10 years (E)	3 new clinics with 3 doctors and 3 support staff serving 410 households	Cost of treatment	62% of all residents better health (1,017 people) leading to reduction in doctor visits from 6 to national average 2.6 (AHO/ WHO http://new.paho.org/hq/dmdocuments/2010/Health_System_Profile-Brazil_2008.pdf).	The average cost of treatment (low-income patients)	£ 6.80 The average cost for a 15 minute consultation - local practitioner estimate	£235,130	£176,348 (25% deadweight)
Residents are better sheltered and more secure in new housing	New houses and infrastructure including drainage, sewage and street cleansing	£272,700 (construction only)	Improvements for approx. 1,640 people	Wellbeing	55% of 1640 (902) residents experienced better security	Wellbeing value for not being worried about crime	£2,968 (from £11,873 using Trotter et al., 2014 adjusted for Brazil economy)	£26,773,615	£20,080,211 (minus 25% for displacement)
Fewer community disputes and more democratic demands made through the participatory budget process	New community centres built and more community workers employed	£5,150 per community centre and £6,136.23 per annum for 6 community workers over 10 years (E)	Three community meeting rooms and six community workers serving 410 households	Wellbeing	45% of 1640 residents (738) experience better neighbour relations	Wellbeing value for talking to neighbours regularly	£962 (from £3,848 using (Trotter et al., 2014 adjusted for Brazil economy)	£7,099,560	7,099,560
Residents gain from multiple ecosystem services benefits	Communal open space and green space	£7,875 (One-off maintenance costs for Mascarenhas Park) and £30,000 estate landscaping costs	Four open space projects for 410 households	Multiple services(see Table 5.2.4)	5,138m²	Pricing for multiple services(see Table 5.2.4)	Pricing for multiple services (see Table 5.2.4)	£48,488	£20,363
Totals		**£1,234,679**							**£33,905,357**

Table 9: Selected outcomes calculations on the added value of social and environmental change (Source: Bichard et al., 2015)

Case study sources: based on Bichard et al. (2015) and Miron & Formoso (2010)

4.9.2. The Redfern Place, Sydney

Project description

The *Redfern Place*, located in Gadigal Country, Redfern NSW, in Sydney, Australia is a transformative regeneration project aimed at replacing the existing ageing Police Citizens Youth Club (PCYC) facility. Spanning 1.1 hectares, the development consists of four interconnected buildings, blending community facilities, office space, and over 350 mixed-tenure dwellings. This mixed-use project fosters inclusivity and connectivity, offering residents high-quality green spaces, a PCYC community facility, and a community hub. The development's vision prioritizes housing diversity and community engagement, with opportunities for shared activities and local events. Initiated in 2023, the project is still under implementation and promoted by Lend Lease and Capella Capital. It is being assessed using the Australian Social Value Bank (ASVB) methodology and the Social Infrastructure and Green Measures for Affordable Housing (SIGMAH) tool, primarily developed for Community Housing Providers together with ASVB to estimate the social and economic benefits that arise from delivering new social and affordable rental housing. Bridge House, an organization dedicated to providing community housing and charitable services in Sydney, collaborated with ASVB and served as the project's client. The Redfern Place case study evaluates potential social outcomes at the early stages of the project's development. Its purpose is to forecast the social value that could be created.

Methodology

The forecasting for Redfern Place utilized the Australian Social Value Bank (ASVB) methodology, drawing on baseline data from Bridge's 2023 Annual Tenancy Survey where available. In instances where baseline data was lacking, third-party research, such as from the Australian Institute of Health, was used. The ASVB was applied to forecast social value from three relevant social outcomes in the project's framework: designing safer communities, more social communities, and meeting the needs of the community. It was predicted that 12% of residents would experience a sense of increased safety in their daily lives at Redfern; 62% of residents were forecasted to regularly engage in conversations with their neighbors and 50% of residents would feel more involved in local decision-making related to their housing or neighborhood.

The SIGMAH tool was used to calculate the wider social and economic benefits associated with the Redfern Place development, focusing on social and affordable housing outcomes. Housing development details (e.g. dwelling types, tenant services, turnover, and vacancy rates) were inputted into SIGMAH to estimate both monetary and non-monetary benefits, including rent savings from Bridge's reduced rent and the environmental certifications of the building's construction. Market details (e.g. affordability and rental information) contributed to calculating monetary estimates of the greenhouse gas (GHG) and environmental benefits linked to design features like green spaces and transport connectivity. Additionally, information on the environment and local amenities (e.g. including pre- and post-development landscapes and access to transport and green space) was inputted to calculate the embodied carbon and energy performance of the new dwellings, although these were not included in this study.

Key results

Here, main results are reported and divided into three Social Value Pillars: People, Environment, Advocacy.

The ASVB forecasted that Redfern Place would generate **$2,998,824 of social value** in the first year, based on three key social outcomes. Meanwhile, SIGMAH calculated that the project would provide **$2.07 million of Total housing development inputs**, combining **Total Public Benefits** (**$283,695**) and **Total Private Benefit and Wellbeing** (**$1,791,302**) (Figure 8).

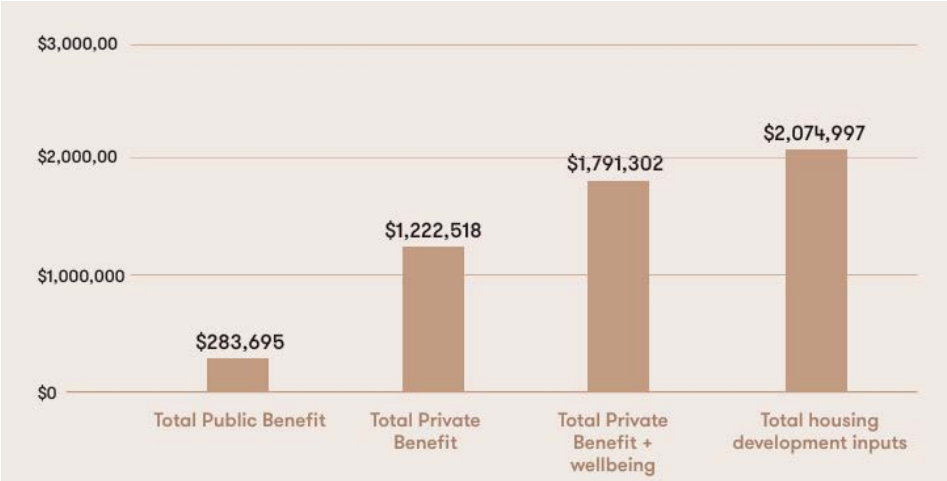

Figure 8: Monetary distribution ($) of the Social Value that Redfern Project would provide (Source: Hayball, 2024)

People: focuses on Designing connection to nature, with Redfern Park located **less than 20 meters** from the site; Designing safer communities, resulting in **$1,467,299 of social value** to enhance resident's safety; Designing more social communities, leading to **$780,315 of social value** to promote neighbors talking regularly.

Environment: comprehends Designing more climate resilient communities, generating **100% of power from on-site solar panels and 5 Green Star**; Designing more ecological supportive communities, with **26% of the site made of green space** for the community; Designing more connected communities, this includes being **less than 5 meters** from the nearest bus stop and **857 meters** from Redfern Station.

Advocacy: consists in Designing more equitable housing for communities, with 100% of units being tenure-blind to ensure equality in placemaking, amenities, and quality; Designing with connection to place, providing three design principles focused on community connection and 15% of social and affordable housing for Aboriginal households. Additionally, SIGMAH estimated a cost-of-living relief of **$36,553 per dwelling per year**, due to Bridge's lower rents and improved thermal performance.

Case study sources: based on Hayball (2024)

4.9.3. The Strand Shopping Centre, Bootle

Project description

The Strand is a shopping centre located in Bootle, UK, consisting of 132 retail units over two levels. Positioned centrally within the town, it serves as Bootle's primary retail hub, playing a crucial role in its economic and social development. However, prior to its acquisition by Sefton Council in 2017, The Strand suffered from an increasing lack of investment by its private owners. Recognizing its strategic importance to the future of the town centre, Sefton Council acquired The Strand in 2017 to drive its regeneration as part of a broader urban revitalization effort. The council aims to ensure economic, social, and environmental sustainability through an £80m ten-year investment plan, leveraging The Strand's central location to strengthen connections between retail, community, and cultural functions. The asset is managed by the private asset and development management firm Ellandi, specialised in retail and regeneration, which was acquired by New River in 2024. Operations oversight is entrusted to SMR – Savills Management Resources, a leading provider of asset management services.

The regeneration plan envisions a **mixed-use space** integrating retail, leisure, hospitality, healthcare, and education. Key interventions include partial demolition and renovation to enhance the retail offering and host community gatherings, repurposing retail space to accommodate an education and digital hub alongside a health and social care hub and developing the Canalside area to introduce cultural and leisure amenities.

Additionally, improvements to public transport connectivity are planned, alongside active citizen engagement in the planning process to ensure alignment with community needs.
With construction scheduled to begin in 2025, Sefton Council has already implemented temporary uses of the site, by providing Community Interest Companies (CICs) with free access to spaces and offering them operational support. This includes facilitating events and activities by offering logistical assistance such as electricity feeds, storage space, and necessary infrastructure. Additionally, it has supported large-scale community events, including the annual Community Christmas Light Switch-On, by coordinating live performances, and interactive experiences.

Methodology

To assess the social value generated by The Strand prior to its regeneration, Ellandi underwent a Real Estate Social Value Index (RESVI) assessment. This tool evaluates the social, economic, and environmental benefits associate with the asset. The assessment classified results into themes (Jobs, Growth, Social, Environment) and attributed contributions to different stakeholders, including the property manager, operations manager, and occupiers.
The regeneration of The Strand is expected to enhance social value by improving resident well-being through improved public services, fostering inclusive growth, creating a more connected and integrated town centre, and repurposing the asset sustainably. The project aims to support mental health through better public spaces, provide access to jobs and skills, strengthen community engagement, and ensure a balanced mix of uses that improve perceptions of Bootle while fostering economic, social, environmental, and commercial improvements.

Key results

In 2022, The Strand generated an estimated social value of **£1,883,763**. The majority of this value was attributed to local job creation, which accounted for £1,839,686, stemming from 67 locals employed in the centre. Economic growth initiatives contributed £34,063, while social programs added £4,905. Environmental benefits, though smaller in financial terms, amounted to £109, stemming from employees choosing sustainable mobility options to reach The Strand.
When broken down by stakeholder contributions, the Property Manager, Ellandi, generated £247,257 in social value. The Operations Manager, SMR – Savills Management Resources, contributed £812,743. Occupiers, including retailers and 19 Community Interest Companies (CICs), played a significant role, collectively contributing £1,066,020 towards the overall social value.
A significant portion of the social value stems from the activities of 19 Community Interest Companies operating within The Strand. Notable examples include YKids, which promotes literacy among children, and The Big Onion, which supports local entrepreneurs and job seekers. Additionally, the provision of free retail space to CICs has resulted in cost savings of approximately **£1.3 million** for these organizations since Sefton Council's acquisition.

Case study sources: based on Driver (2024), Sefton Council (2023), Sefton Council (2024)

4.9.4. South Acton, London

Project description

The South Acton regeneration project in London is a large-scale urban development initiative aimed at regenerating the South Acton Estate. This project is being carried out by Acton Gardens LLP, a joint venture between Countryside Properties and L&Q, with work spanning from 2015 to 2029. The project aims to improve housing conditions, enhance social infrastructure, and foster a sense of community through mixed-use development.

The South Acton masterplan, updated in 2018, outlines the complete redevelopment of existing homes, ensuring that most secure tenants- those with a lifelong tenancy contract- can transition directly into new housing upon completion. The updated masterplan also increased the total number of homes from 2,350 to 3,448, incorporating a higher-density approach compared to previous plans. This includes 6 buildings of 12 or more stories distributed throughout the area. The vision for the new development is to create five parkland neighbourhoods, establish a community hub with youth, retail, and social facilities, and enhance connectivity with the surrounding area. As of 2020, older (South Acton Estate) and new developments (Acton Gardens) coexist in the same area.

Methodology

The social sustainability assessment for South Acton employs the **Social Sustainability Measurement Framework**, developed by Social Life and the University of Reading for the Berkley Group, later adapted for the Acton Gardens programme. This framework evaluates *social sustainability, local community strength* and *quality of life* considering both physical and non-physical factors. These span three core dimensions: **Social and Cultural Life**, **Voice and Influence**, and **Amenities and Infrastructure**. The framework was adapted for use in neighbourhoods and wider contexts.

The data necessary to develop the framework indicators was collected through online and face-to-face residents' surveys (230 total respondents), interviews with local stakeholders, and site assessments. The survey results were not used for the creation of monetized indicators: rather, the methodology involved two phases. First, survey results were confronted with average responses of people living in comparable areas, extracted from two large-scale national surveys: the *Understanding Society* and the *Community Life Survey*. Secondly, architects carried out independent site assessments using the *Building for Life tool*, which evaluated the contribution of the physical assets to the site's social sustainability. The tool scores factors such as connectivity, public spaces, safety, and social interaction opportunities using a traffic light system (Green: fully meets criteria, Amber: partially meets, Red: does not meet).

The results of the surveys, the interviews and the independent assessment were used to develop a series of indicators falling within three categories: Social and Cultural Life, Voice and Influence, and Amenities and Infrastructure.

The 2020 data collection, which follows two previous rounds of research carried out in 2015 and 2018, faced challenges due to COVID-19 restrictions. They led to an overrepresentation of temporary housing residents and an underrepresentation of Ealing Council secure tenants. The inability to conduct a tenure-balanced survey, as in previous years, means that the sample does not fully match the estate's tenure profile, potentially influencing the results.

Key results

The 2020 assessment found that social sustainability in South Acton was evolving with both positive and negative trends:

- **Social and Cultural Life**: The older estate exhibited stronger community ties, with 78% of residents reporting that they regularly interacted with neighbours, compared to only 52% in the new development. Long-established social networks contributed to a greater sense of belonging among 74% of older estate residents, whereas only 59% of new development residents felt the same. In

contrast, 68% of new development residents reported feeling isolated at times, compared to just 41% in the older estate. Feelings of safety were also higher in the new development, with 72% of residents stating they felt safe walking alone at night due to improved lighting and modernized infrastructure, whereas only 48% of older estate residents shared this perception. Concerns about crime and antisocial behaviour were more prevalent in the older estate, where 63% of residents expressed worries about these issues, compared to 39% in the new development.

- Voice and Influence: A higher proportion of residents in the new development (68%) felt they had some influence over local decision-making, compared to only 52% of those in the older estate, who cited a lack of engagement opportunities in the regeneration process.
- Amenities and Infrastructure: Acton Gardens scored higher than the older estate in transport links, distinctive character, and community spaces, reflecting improvements to housing design and the public realm. Notably, 75% of new development residents rated local amenities as satisfactory, compared to 62% in the older estate.

Although not directly monetized, the framework provided comparative data demonstrating that social resilience had been maintained despite pandemic-related challenges, with 72% of respondents expressing a sense of community support.
The following graph compares the social sustainability assessment results of South Acton Estate and Acton Gardens in 2020, evaluating the three variable categories. It highlights differences in resident experiences between the older estate and the new development, providing insights into the impact of regeneration efforts. Overall, the framework has proven effective in tracking changes in social sustainability, providing valuable insights to inform future phases of the regeneration project.

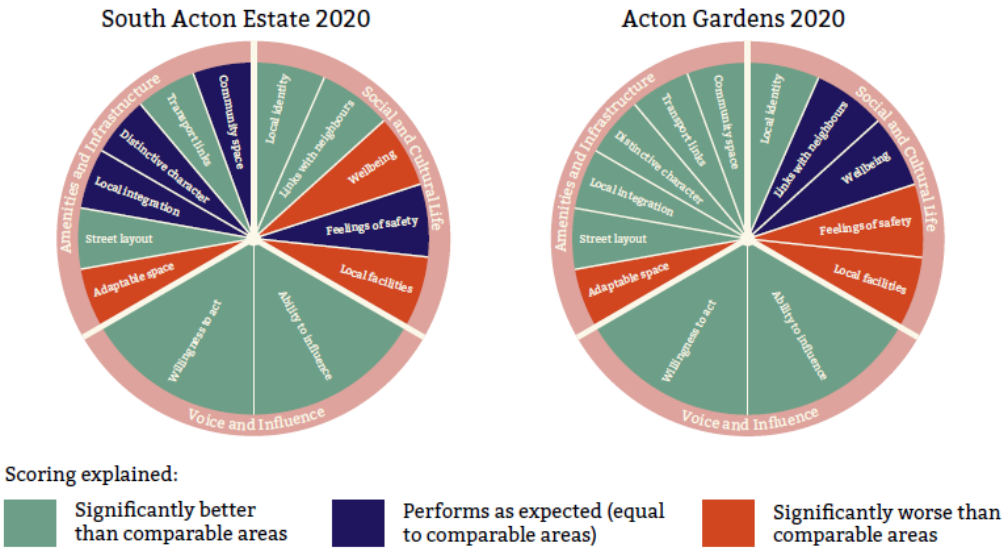

Figure 9: Acton Estate's and Acton Garden's assessment results confronted with comparable areas (Source: University of Reading & Social Life, 2021)

Case study sources: University of Reading & Social Life (2021), Social Life (2012)

4.9.5. Hartlepool Area Remodelling Project, Hartlepool

Project description

The *Hartlepool Area Remodelling Project*, located in Hartlepool, a port town in County Durham, England, was developed as part of the Hartlepool Borough Council initiative, aimed at driving innovative regeneration efforts. This included representatives from local public, private, and voluntary sectors, the project was shaped through extensive consultation with the local community. The project's primary focus was the delivery of a Community Housing Plan (CHP) for the area, which outlined several key initiatives. These included the acquisition and demolition of 478 residential properties, the construction of 172 new homes, the creation of two community parks, and the addition of a new play area. To support residents impacted by demolition, the plan included a 'Home Swap' scheme and relocation grants. Additionally, the project aimed to improve approximately 800 existing homes and some business premises, alongside enhancing the streetscape through landscaping and environmental works. The overarching objectives of the project were to stabilize the local housing market and improve the residential environment, particularly addressing the conditions in the private rented sector. The project was implemented between 1999 and 2008, marking a significant period of transformation and development in Hartlepool.

Methodology

The Hartlepool Area Remodelling Project, part of the New Deal for Communities Programme, implemented specific programs tailored to local needs. In the Housing & Physical Environment section, the project aimed to provide practical support and advice to both tenants and landlords in the private sector, including a voluntary landlord accreditation scheme, to improve housing conditions. In the Education section, the focus was on increasing opportunities for primary and secondary pupils to participate in sports, aiming to broaden their horizons, incentivize school attendance, enhance confidence and self-esteem, reduce disaffection, and improve health outcomes. In the Health section, the project aimed to reduce anxiety, stress, and nervousness by employing a full-time coordinator to offer free complementary therapies (CT) and referrals to qualified therapists, regardless of income. This initiative empowered individuals to take control of their health and promote overall well-being.

Key results

The results demonstrate generally positive outcomes across all indicators during the period from 2002 to 2008. The People-related indicators section, comprising "**Education**", "**Worklessness and Finance**", and "**Health**", shows the most significant improvements in the "**Education**" category. The indicator "**Key Stage 4, five or more GCSEs at A* to C**" recorded a notable increase of 24.8 percentage points, reflecting substantial progress in student academic achievement. No negative outcomes were observed in education, though the indicators "**No qualifications**" and "**Need to improve basic skills**" showed no change. In "**Worklessness and Finance**", the "**Gross household income below £200 per week**" indicator saw the most improvement, with a -9.6 percentage point decrease, suggesting a rise in household incomes. However, the "**Unemployment rate**" remained stable, with no change, indicating no significant variations in the proportion of people actively seeking but not finding work. In the "**Health**" category, the "**SF36 mental health index, high score**" experienced the highest positive change, with a 9.6 percentage point improvement, reflecting an overall enhancement in mental health outcomes.

The Place-related indicators category also demonstrates significant improvements, particularly in "**Crime**". The "**Lawlessness and dereliction index, high score**" dropped by -19.9 percentage points, signalling a decrease in perceptions of lawlessness and dereliction, reflecting improvements in both safety and the physical environment. Similarly, the "**Fear of crime index, high score**" saw a-15.4 point decline, indicating reduced fear or anxiety about crime within the community. In the "**Housing and Physical Environment**" category, the indicator "**Area got much/slightly better in the past two years**" recorded a 20.6 percentage point increase, reflecting positive perceptions about the improvements in the area. The "**Very/fairly satisfied with area**" indicator also rose by 20.4 percentage points, indicating greater resident satisfaction with their local

environment. Additionally, the "**Problems with environment index, high score**" decreased by -3.8 points, suggesting a reduced perception of environmental problems. In the "**Community**" category, a significant positive shift is evident, with the indicator "**NDC improved area a great deal/a fair amount**" increasing by 27.6 percentage points, highlighting strong recognition of the New Deal for Communities (NDC) initiative's impact. However, the "**Neighbours look out for each other**" indicator showed a slight decline of -0.4 percentage points, indicating minimal change in neighbourly support within the community.

Case study sources: based on Batty et al. (2010), Ltd, C. E. (2005), Sheffield Hallam University, Centre for Economic and Social Research (n.d.)

5. Discussion

The analysis has provided detailed insights into several methodologies and tools available for the assessment of social value in urban regeneration projects, developed and tested in practice by different types of organizations.

The overview confirmed that social value is a multi-faceted and multi-dimensional concept, which includes aspects related to the social, economic and environmental aspects of regeneration projects and related communities. Such heterogeneity of issues requires a holistic approach to assessment, covering a wide range of themes across all sustainability domains.

Most of methodologies and tools included in the review was developed in the United Kingdom. This geographical concentration is probably due to the policy impulse given by the Social Value Act, which has stimulated the debate and the dialogue on the topic, promoting social value assessment activities in the public and private sector. From the review, UK local administrations appear to be particularly endowed with consolidated approaches for spatial transformation evaluations. As shown by Dean et al., (2017), in the UK several programs have been evaluated on a long-term basis, providing lessons learnt and evidence that have informed next regeneration initiatives.

The experience of the New Deal for Communities, where monitoring of outcomes has been undertaken on a regular basis and a final long-term evaluation was conducted, benefitted from several aspects like: using a common methodology for baseline setting and monitoring in the intervention areas; long-term approach; definition of comparator areas. However, these features seem to be more easily applicable in public-led regeneration processes, when clear ties to long-term policy objectives and funding programs are available.

Methods based on Multi-Criteria Analysis can incorporate a range of diverse objectives including qualitative and quantitative criteria, but are considered to suffer from complexity and lack of transferability (Watson and Whiley, 2017). On the other hand, the possibility to tailor the value framework and criteria to the specific project and its context can ensure flexibility and adaptability to different cases. In this perspective, the provision of the BSI Standard for value-based decision-making can represent an important reference for built environment projects.

Methods that allow for the monetization of social value have the advantage of translating complex and multifaceted issues into a common unit of measure. Furthermore, the calculation of benefit to cost ratio can provide insights into the effectiveness of the project and represent an easy-to-read index for many actors in urban regeneration. Monetary results can be leveraged to inform the discussion among different stakeholders involved in and/or impacted by a project. However, robust and transparent approaches are needed to implement such methodologies in an effective way and provide trust needed to make use of these results within a multistakeholder discussion. Implementing adjustments to social value calculation, such as deepening attribution of outcomes to the specific project, assessing additionality and taking into account deadweight, can avoid risks of overestimating the benefits.

On the other hand, several studies have explored the opportunities and limitations of assessment approaches based on monetization, such as for example the SROI. With reference to the SuROI, Higham et al. (2017) identify several issues such as the lack of suitable proxies for the valuation of outcomes. In particular, the monetization of softer and more abstract benefits can prove particularly difficult. Data collection can also emerge as a relevant concern, in particular when the project scale and complexity are very high. Finally, these approaches characterize themselves with a relevant need for resources and time, so the potential users should take into account the possible spending associated with their implementation (ibid).
Several solutions can be put in place to address issues related to data collection, for example ensuring a high commitment of key stakeholders in the project assessment and leveraging data sharing opportunities among partners (UK-GBC, 2020). Communities can provide a relevant contribution in terms of knowledge and data, informing the project conception, planning and design. In many methodologies and tools analysed, the partnership with universities and research institutions played a key role in delivering grounded approaches and supporting data collection.
Further solutions can be operationalized also to solve some methodological challenges that have emerged from the literature, such as the lack of clarity about which beneficiaries are considered in the social value assessment. For example, the WGBC (2023) has proposed to adapt the division into "scopes" - which is currently in use to account for carbon emissions – and apply it to social impact and value, in order to clarify which boundaries are considered in the social value assessment. The scopes would range from an organizational perimeter (entity and internal practices), to building users and site, community and surrounding, and at the broader level the supply and value chains involved.

6. Conclusions

The assessment of social value in urban regeneration projects is an evolving field that requires a tailored, holistic, and transparent approach. Drawing from existing guidance, the comparative analysis of methodologies and tools and case studies, several key recommendations emerge to enhance the effectiveness and impact of social value measurement and delivery in urban development.

1. Integrating social value from project conceptualization
Social value should be embedded in the entire lifecycle of a project, from planning to post-delivery assessment. Early integration ensures that social outcomes are aligned with community needs and stakeholder expectations, fostering long-term sustainable benefits (UK-GBC, 2020). Moreover, a co-design approach should be adopted to define clear, achievable social value objectives.

2. Holistic and context-sensitive Approach
A comprehensive evaluation should consider social, environmental, and economic dimensions, recognizing that social and environmental value creation are interconnected. The approach should be context-sensitive, reflecting the specificities of the local community, regulatory environment, and project scope. Establishing baseline data or leveraging reference projects can enhance impact assessment comparability (UK-GBC, 2020).

3. Stakeholder engagement and collaborative governance
Effective social value creation necessitates the active participation of a broad coalition of stakeholders, including public authorities, private sector actors, third-sector organizations, and community representatives. Engaging local communities in decision-making fosters ownership and enhances the legitimacy of the project. Additionally, social value should be a criterion in the selection of project partners and contractual agreements.

4. Robust and transparent measurement and communication

Social value assessment should be based on clear methodologies and outcome-oriented metrics, ensuring transparency in data collection, calculations, and reporting. Utilizing established frameworks and incorporating additionality analysis to account for optimism bias, strengthens the robustness of evaluations. External validation of results further enhances credibility and accountability.

5. Long-term monitoring and adaptive management

Monitoring mechanisms should be established to track social value outcomes over time, applying relevant key performance indicators (KPIs). The creation of independent oversight bodies or development agencies can help ensure project continuity beyond short-term political cycles. Moreover, adaptive management approaches should be employed to respond to evolving social and economic conditions.

6. Overcoming barriers to social value delivery

Challenges such as lack of financial commitment, governance structures, and standardized measurement frameworks often hinder the realization of social value. To address these barriers, investments in social value capacity-building, policy incentives, and structured reporting mechanisms are necessary. Aligning real estate decision-making processes with social value priorities—through location selection, design and operations, lease agreements, placemaking initiatives, and responsible procurement—can further strengthen the integration of social value considerations.

7. Recognizing social value as a long-term investment

Social value creation should not be seen as an ancillary cost but as a strategic investment that yields long-term benefits. While initial costs may be higher, the potential for sustainable community development, economic resilience, and enhanced quality of life makes it a viable and necessary consideration for urban regeneration projects. Effective partnerships and ecosystems of stakeholders are essential to sustaining these efforts.

In conclusion, social value assessment should not be an isolated exercise but a fundamental component of urban regeneration strategies. By adopting a structured, inclusive, and transparent approach, urban development projects can maximize their contribution to societal well-being while ensuring accountability and long-term impact.

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Annex 1- Frequency of social value assessment themes in the literature

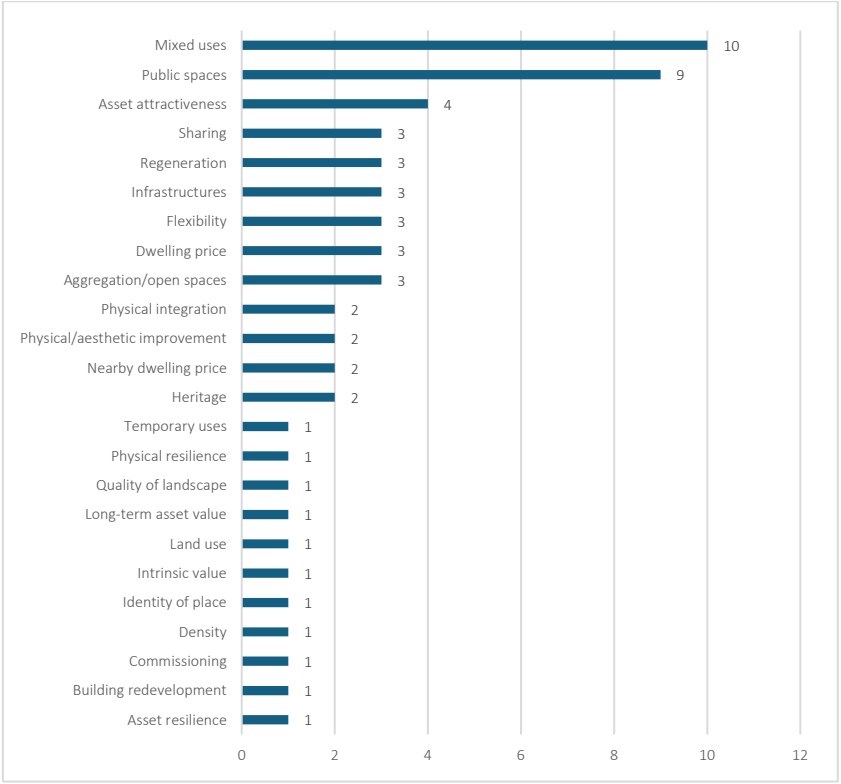

Figure 10: Assets and spaces, frequency of codes

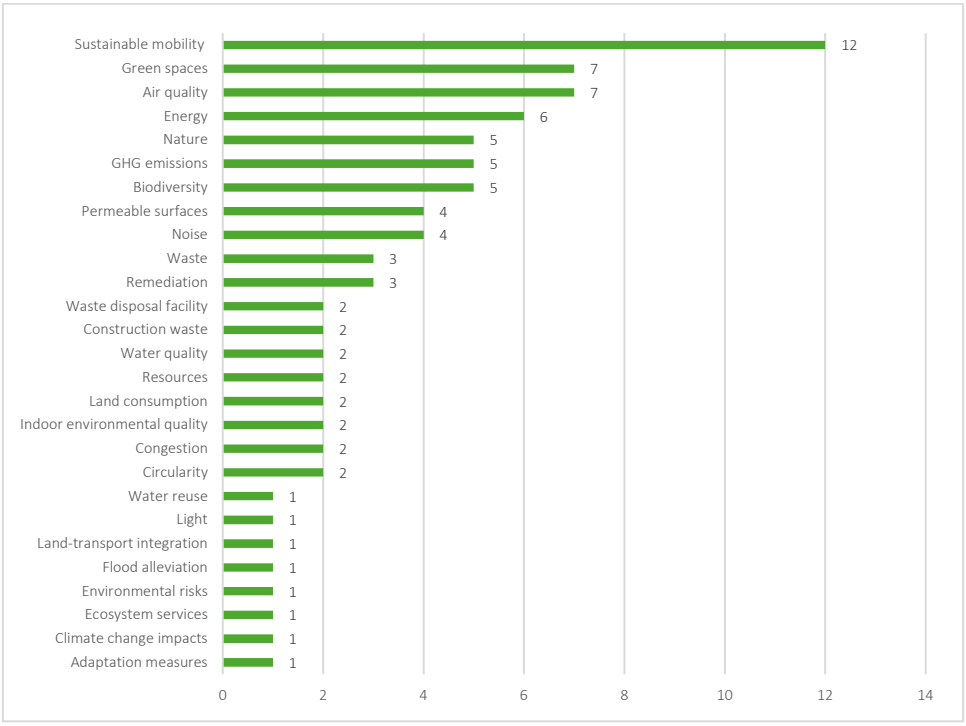

Figure 11: Environmental dimension, frequency of codes

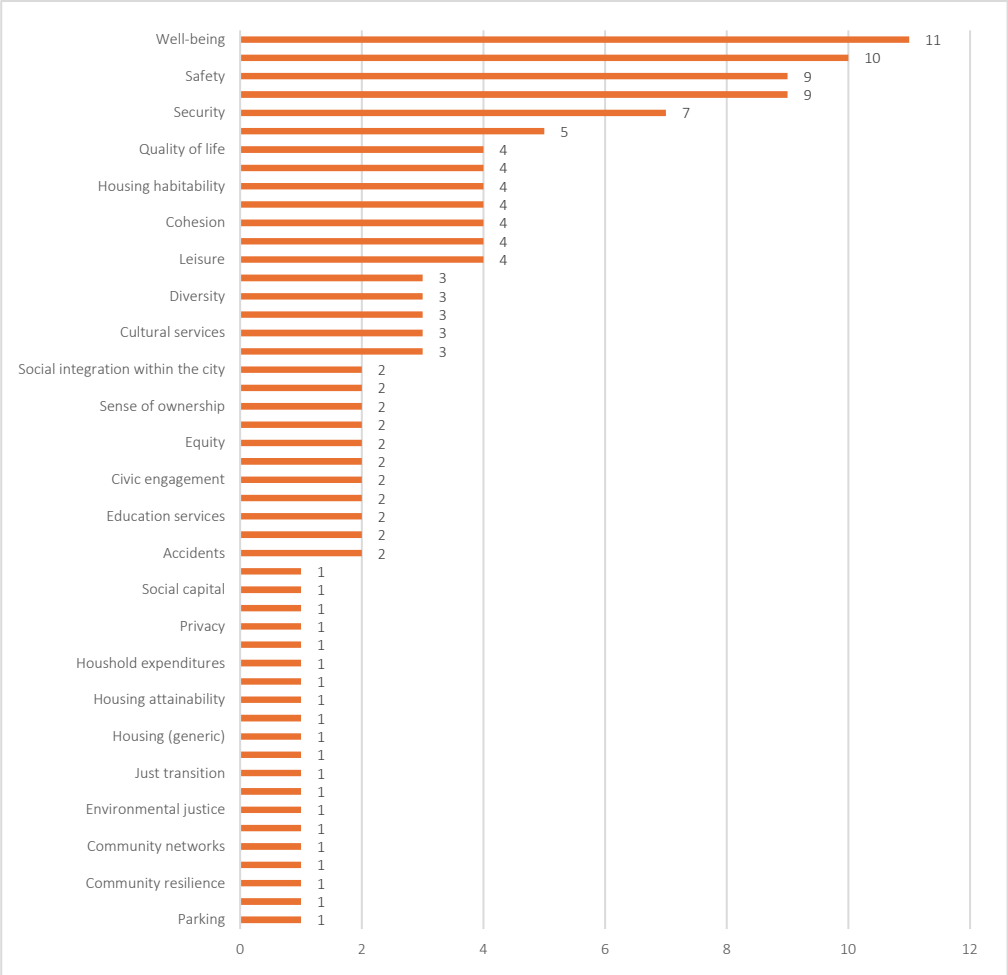

Figure 12: Social dimension, frequency of codes

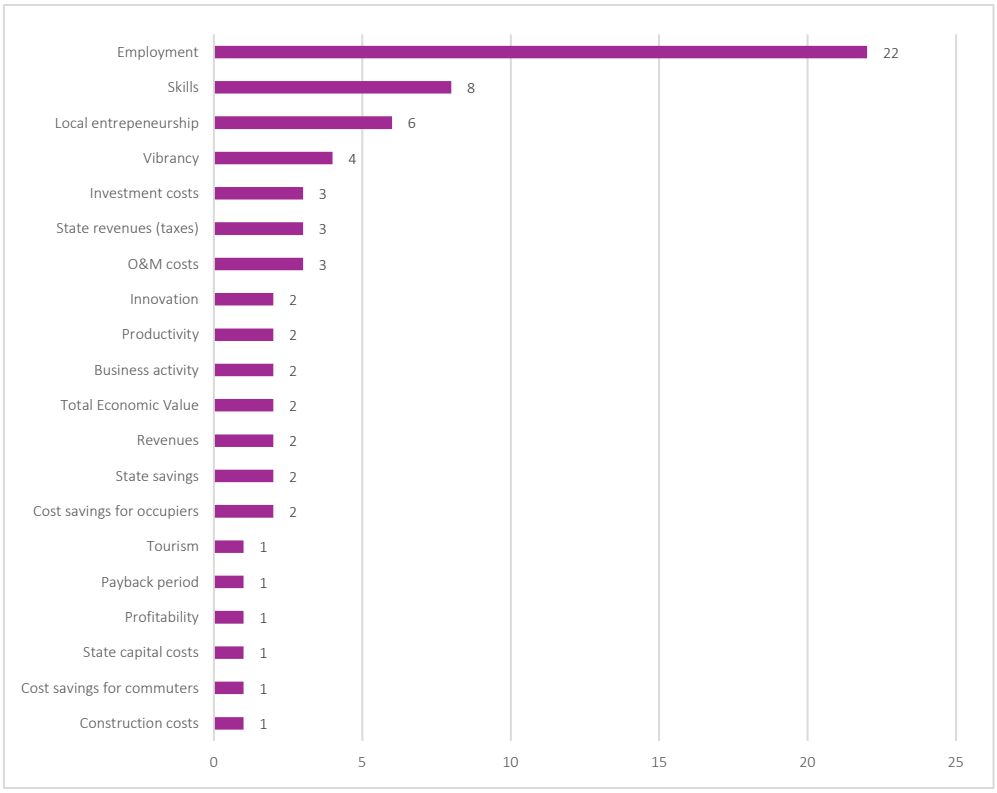

Figure 13: Economic dimension, frequency of codes

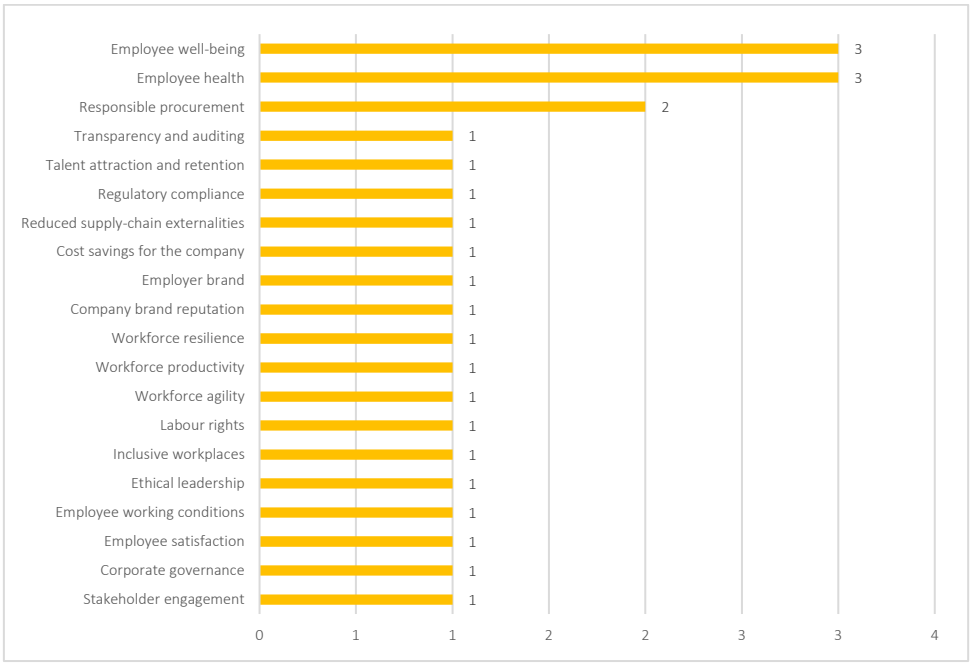

Figure 14: Organizational dimension, frequency of codes

Annex 2- Scientific papers implementing different approaches of social value assessment

Paper	Assessment methodology	Assessment object	Case study name	Assessment timing	Case study location	Case study type	Assessed components	Quantitative results
Almahmoud and Doloi (2020)	Multivariate statistical analysis; Factor Analysis; reliability analysis	ranking of social sustainability attributes in construction projects	1. Riyadh auction 2. Economic initiatives project	ex-post	Riyadh (Saudi Arabia)	regeneration construction projects (1. creation of a trading area for new and used goods; 2. hub for economic ventures aimed at improving social welfare, including e.g. farmers' market, families' market and flower market; leisure activities and play)	Factor 1: health and physical comfort Factor 2: accessibility Factor 3: integration Factor 4: economy Factor 5: participation	Relevance of factors and underlying attributes of social sustainability
Angrisano et al. (2024)	Multidimensional Evaluation Framework, SOCRATES (SOcial multi-Criteria Assessment of European policies)	alternative regeneration scenarios for a historic village, tangible and intangible values	Seminary adjacent to the Santa Maria of Montevergine Church		Sant'Agata de' Goti historic village (Benevento, Italy)	reuse of cultural heritage (adaptive reuse)	1. Social Capital and Governance 2. Identity of Place 3. Quality of life 4. Education, Creativity and Innovation 5. Work and Prosperity 6. Protection	
Azzali (2016)	Post-occupancy evaluation	long-term value for the city and inhabitants	Aspire Zone, Doha's Sports City	ex-post	Doha (Qatar)	themed-sport area resulting as legacy of 2006 Asian games	physical integration of new area within the city social integration of new area plurality of functions offered	No, mainly qualitative analysis
Bottero and Datola, 2020	Stakeholder analysis + Social Multi-Criteria Analysis (NAIADE- Novel Approach to Imprecise Assessment and Decision Environments)	6 regeneration alternatives in terms of social impacts on stakeholders	"Collegno Rigenera"	ex-ante	Collegno, Italy	- requalification of area with social and economic fragility	Criteria are divided into 5 categories: Sharing (Public space/Private space; Co-working space; Co-housing inhabitants) Environment (Permeable surface/territorial surface; Urban gardens; Waste production) Service (Residence; Commercial areas; Sports and cultural areas; Mixité index) Mobility and accessibility (Slow mobility; Car parking; Bike or car sharing points) Economy (Total economic value; Investment cost; New jobs) Regeneration (Regeneration; Via de Amicis regeneration; Territorial index)	technical ranking; social ranking

Bottero et al., 2022	Multi-Criteria Decision Analysis (MCDA) + Financial Analysis (FA)	11 alternative scenarios for requalification of Rogoredo area	Rogoredo railway area	ex-ante	Milan, Italy	- redevelopment of former railway area	Dimensions and criteria of the MCA: Enviroment (Green areas; Construction/Green areas; Regeneration intervention; Air pollution and acoustic noise) Society (Accessibility; Mixité; Pedestrian path; Public spaces; Security) Economy (Investment costs; Revenues)	ranking + results obtained by each alternative scenario in the evaluation and for each criterion + quantitative results for the FA
Bottero et al., 2019	1) Stakeholders analysis 2) Scenario building 3) Social Multicriteria Analysis through NAIADE 4) Multi Attribute Value Theory (MAVT)	best alternative scenario considering stakeholders' preferences and needs	Kwun Tong district	ex-ante	Hong Kong	- redevelopment of former industrial area	**Criteria of the MCA:** 1) **Liveability** 2) **Environmental Sustainability** 3) **Mixed Functionality** 4**) Social Sustainability** 5) **Accessibility** 6) **Attractiveness** 7) **Extra cost-profit** **Criteria of the MAVT:** Function, Density, Sustainability, Connectivity (each criterion covers a set of qualitative and quantitative attributes)	ranking + results obtained by each alternative scenario in the evaluation and for each criterion
Capolongo et al., 2019	**Stakeholder Analysis**, **Nara Grid** for the values elicitation of the Built Cultural Heritage Definition of different sustainable scenarios evaluated by the **Discounted Cash Flow Analysis; MCA**	set of alternatives to regenerate the area	Former hospital of Vimercate	ex-ante	Vimercate (Italy)	reuse of an abandoned health care facility with several historic buildings	1.Functional Sustainability (1.1 Flexibility, 1.2 Usability/ Accessibility, 1.3 Buffer and common space, 1.4 Transformability index) 2. Socio-Cultural Sustainability (2.1 Functional mix; 2.2 Social Attractiveness; 2.3 Aggregation spaces) 3. Environmental Sustainability (3.1 Harmonization with the context; 3.2 Energetic quality ; 3.3 Consistency with constraints) 4. Economic Sustainability (4.1 Construction cost; 4.2 Maintenance cost; 4.3 Profitability of the intervention)	ranking + results obtained by each scenario

Damigos and Kaliampakos, 2012	**Case 1**: financial cash flow analysis + socio-economic analysis + monetization of environmental benefits; **Case 2**: Fuzzy Delphi Method	economic value (including social and environmental benefits) generated by the redevelopment	Lavrion Technological and Cultural Park (LTCP) Hellenikon Metropolitan Park	ex-ante	Athens, Greece	- redevelopment of a former metallurgical complex to a Technological and Cultural Park; - potential transformation of the former Athens International Airport into a Metropolitan Park	**Case study 1:** Financial analysis: cash flows Socio-economic contribution: (a) state revenues generated by direct and indirect taxes (b) non-market benefits associated with the creation of direct employment and the remediation of the site Soil decontamination works Construction of underground disposal facility **Case study 2:** effect of redevelopment activity on price of dwellings nearby (-> using Fuzzy Delphi Method, based on expert elicitation)	Yes (monetary)
Dean et al. 2017	Sustainable Return on Investment (SuROI) + Single Regeneration Budget (SRB)	social and environmental value	high-rise housing scheme and an environmental-led program developed by City West Housing Trust	ex-post	West Walford, UK	housing renovation	**Social**: Housing affordability, community health, crime reduction. **Environmental**: Carbon emissions, resource conservation. **Economic**: Job creation, cost savings	Yes (monetary)
Della Spina, 2019	Social Multi-Criteria Evaluation	four alternative scenarios of regeneration strategies		ex-ante	Catanzaro, Italy	culture-led regeneration strategies for the historic centre of the city	**Criteria Indicators** **C1. Economic** I11. Attractiveness I12. Permanent Jobs I13. Investment Costs I14. Payback Period (PBP) **C2. Social and Culture** I21. Socio-Cultural Associations I22. Cultural and Recreational Services I23.Potential for Cultural Initiatives **C3. Accessibility** I31. Pedestrian Connections I32. Proximity to Public Transport **C4. Urban Landscape Quality** I41. Permeable Surface Area I42. Traffic Restriction I43. Quality of Landscape I44. Mixed Functionality	Final ranking

De Sousa, 2002	CBA	public benefits of brownfield regeneration vs. greenfield development	not applicable (prototypical projects based on real projects data)	na	Greater Toronto Area, Canada	brownfield regeneration	**Public or government fiscal benefits** Restoration or enhancement of the tax base of government (property and income tax). Increased utilization and efficiency of existing hard (infrastructure) and soft services. **Environmental benefits** Protection of public health and safety. Reduction of development pressure on greenfield Reduction in externalities from transportation (air pollution, congestion, etc) and industrial or residential activities. Protection of groundwater and soil **Social benefits** Maintenance of existing jobs and creation of new ones Renewal of urban cores	Yes (monetary)
Higham et al., 2017	Sustainable Return on Investment (SuROI)	social and environmental value	Seaside Market Old Station Old Factory (real names not specified)		London and England	housing-led mixed-use regeneration developments	- Ability to afford Housing - Reduced fear of Crime - Live in well-designed neighbourhood - Reduced crime associated with improved design features - Reduced property running costs - Strengthened local social capital	Yes (monetary)
Laprise et al., 2018	set of indicators (software-based)	sustainability	Val Benoit project	in-itinere (construction)	Liège (Belgium)	brownfield regeneration of former University campus (abandoned)	**Context criteria and indicators**: - Environment (Mobility, Air Pollution, Noise Pollution, Light Pollution) - Socio-cultural (Proximity of school facilities, Proximity of commercial facilities, Proximity of recreational facilities) - Economic (Population, Job, Local economy) **Project criteria and indicators:** - Environment (Land, Energy, Water, Biodiversity, Well-being) - Socio-cultural (Well-being, Security, Heritage, Diversity) - Economic (Direct costs, indirect costs, External costs, Flexibility) **Governance criteria and indicators:**	Performance across applied indicators

							- Management (Remediation, Temporary uses, Construction site, Commissioning) - Process (participation, collaboration, information access, evaluation)	
Louali et al., 2022	Social CBA	social return on investment of bottom-up regeneration initiatives	Gebrookerbos project (2016-2020)		Heerlen, the Netherlands	socio-spatial regeneration project where residents and entrepreneurs are allowed to start activities on vacant and open spaces; 72 initiatives analysed, 3 themes: 1) urban agriculture; 2) natural encounters; 3) recreation	- Nuisance youth; - Degradation - Nuisance and unsafety - Social participation - Citizens' involvement - Connection with the area (+ project costs: workers and managers, funds allocated)	Not provided (they comment results, e.g. on costs and revenues, in a qualitative way)
Mak and Stouten, 2014	analysis of indicators; comparison between initial measurement and recent data; comparison of two areas with Rotterdam values	valuation (economic and social value) of the areas	Oude Noorden and Spangen neighbourhoods	ex post (+ comparison with initial measurement)	Rotterdam, Netherlands	urban renewal of two neighbourhoods promoted by the municipality of Rotterdam	market value of area (average house value per square meter) socio-cultural aspects (upgrade of quality of life; safety), including: - Livability index - Safety index - Share of inhabitants that is satisfied with their area - Social index	indicator values
Mariotti & Riganti, 2021	Contingent Evaluation to estimate WTP of citizens (+ comparison with other study which uses Hedonic Pricing)	valuation of social benefits of urban regeneration projects	re-opening of Martesana canal	ex-ante	Milan, Italy	intervention on water infrastructure (reopening of water canal)	Total Economic Value (use and non use values)	Yes (monetary)
Ribeiro, 2008	CBA	regeneration intervention in historic oldtown	regeneration intervention for the São Paulo community	ex-ante	Lisbon, Portugal	regeneration of oldtown area comprising 38 buildings, 24% of them historic	**Benefits:** - Asset sales and rentals - Lower social cost (measured by unemployment reduction thanks to new jobs creation) - Better living environment **Costs:** - Opportunity costs of property - Improvement costs - Tenants relocation costs - Forgone revenue	Yes (monetary)

Tate et al., 2023	SROI	Social benefits of the intervention, monetization of economic impacts of the intervention on the local economy	Connswater Community Greenway	ex-post (project was completed in 2017)	Belfast, United Kingdom	urban green and blue infrastructure, regeneration project	- property values - flood alleviation - tourism - biodiversity - climate change - health and wellbeing - crime - employment and productivity (+ construction costs and maintenance costs)	Yes (monetary)
Tyler et al., 2012	Cost-benefit ratios	regeneration programmes undertaken from 2000 to 2009	Not applicable	ex-post	United Kingdom	holistic regeneration programmes	**Theme 1. Worklessness, skills and business development** Tackling worklessness Skills and training General business support Start-ups and spin-outs Business enterprise research and development **Theme 2. Industrial and commercial property** **Theme 3. Homes, communities and environment** New-build housing Housing improvement Acquisition, demolition and new build Communities: volunteering Communities: investing in community organisations Environmental: open space Environmental: public realm Neighbourhood renewal	Yes (monetary)
Watson and Whitley, 2017	SROI	Impact of design on building's users	three non-clinical healthcare buildings	ex-post	Not specified	Retrofits of occupied buildings	**Set of outcomes:** - well-being (and stress) - performance (care and productivity) - NHS cost savings (due to reduced intention to access psychosocial support services through a general practitioner environment)	Yes (monetary)
Ying et al., 2023	Social Impact Assessment	citizens' satisfaction on the waterfront state and possible regeneration strategy	Sungai Petani waterfront	ex-ante	Sungai Petani, Malaysia	waterfront regeneration	**Environmental aspects** (Maintenance, Urban furniture, Greenery, Accessibility, Pedestrian-Cycling, Traffic-Parking) **Social aspects** (Variety of Services, Provision of Water-based services) **Economic aspects** (Respectful to Historical Evidence, Cultural-oriented)	No, mainly qualitative analysis

Annex 3- Calculation approaches and formulas in methodologies and tools for social value assessment included in the comparative analysis

Methodologies

National TOMs 2022

The National TOMs is a standard for measuring and reporting social value in procurement and management. It centres around five key themes, including jobs, growth, social, environmental and innovation. For each theme, the standard defines a series of outcomes and measures, which can be monetized using financial proxy values. The application of this methodology is supported by an Excel calculator.

Main application steps (using the open-source spreadsheet (National TOMs 2022 Calculator):

- enter local area and industry (to localise some measures)
- read the Themes, Outcomes and Measures
- enter the number of units for each measure. Check the evidence required and for further guidance the specific tab
- the calculator will output the social value generate for each Measure and the total at the bottom of each tab

Formula:

Social Value = ∑ (Quantity × Unit Value × Adjustment Factors)

Where:

- Quantity: The number of instances an outcome occurs (e.g., number of people trained, hours volunteered).
- Unit Value: The assigned financial proxy value for a specific outcome, based on research and economic valuation.
- Adjustment Factors: These include deadweight, displacement, attribution, and drop-off adjustments to ensure additionality (i.e., the value is not overestimated).

Final output: monetization of social value.

National Social Value Standard 2024

The National Social Value Standard is a measurement framework for the appraisal of social value at the forecasting, monitoring, and evaluation stages. It is designed to be applicable across various industries, including among clients, organisations in the construction and infrastructure industry.

Main application steps: not specified

Formula:

The National Social Value Standard adopts the following model:

$SV = E + B$

Where:

SV = social value

E = economic net benefits value added by the organisation

B = external net benefits to society

$B = I + G$

Where:

I = Individual net benefits
G = Reduction in government expenditure (excluding transfers).

The external net benefits within the model incorporates both individual benefits not already included in the main economic model and reductions in government expenditure.

Final outputs:
Social value monetization
Social value ratio (=net present benefits/net present costs)

Better Places Approach

The Better Places approach is an evidence-based approach to social value, created to make better-informed decisions in spatial planning and land use.
The approach is based on active and passive data elaboration (see application steps below).

Main application steps:

- collect active data (i.e. community's views of their quality of life and wellbeing gathered through engagement via face-to-face meetings or digitally)
- collect and standardize passive data (i.e. social, economic and environmental data mapped to Quality of Life Framework, retrieved from open source datasets);
- spatial representation of data through a GIS system and baseline definition
- monitor and track change over time

Final output: scores and interactive map, which can be explored spatially, by specific areas, by overall scores, by Quality-of-Life theme, sub-theme or by specific dataset.

Social Sustainability Measurement Framework

The Social Sustainability Measurement Framework is designed to measure social sustainability in urban regeneration and housing development projects. It includes indicators to assess physical aspects (such as infrastructure and transport) and non-physical aspects (such as social relationships and sense of belonging).

Main application steps:

- Surveys with residents (structured in the following areas: Amenities and Infrastructure; Social and Cultural Life; Voice and Influence)
- Site analysis
- Benchmarking with national data
- Periodic monitoring during regeneration

Final output: project scoring and benchmarking.

True Pricing Framework

True Pricing is a methodology to calculate and communicate the true cost of products by including social, environmental, and economic impacts. It enables businesses and consumers to understand and address unsustainable external costs associated with production and consumption.

Main application steps:

- identify unsustainable external effects
- quantify impacts through remediation costs
- aggregate social, environmental, and economic costs

- calculate the true price by adding the transaction price to the true price gap.

Final output: monetized value of true costs associated with the product.

Impact-Weighted Accounts Framework (IWAF)

IWAF is a framework that integrates the positive and negative social, environmental, and economic impacts of an organization into its financial accounts. This enables organizations to measure, monetize, and manage their societal contributions alongside traditional financial performance

Main application steps:

- define the impact pathway and material aspects.
- quantify impacts using reference scenarios and benchmarks.
- monetize impacts in a common unit (e.g., monetary value).
- integrate impacts into an expanded profit and loss (P&L) statement.
- use results for strategic decision-making.

Final output: impact is quantified in monetary terms, aggregated across six types of capital and integrated into financial accounts.

Sustainable Return on Investment (SuROI)

SuROI combines Social Return on Investment (SROI) with environmental and economic impact assessments to evaluate the comprehensive value created by regeneration projects. It translates social and environmental changes into monetary terms for better decision-making and investment appraisal.

Main application steps:

Scope and Stakeholder Identification:

Scope Definition: Clearly define the boundaries of the project, including geographic, temporal, and thematic scopes.

Stakeholders: Identify all individuals or groups (e.g., local residents, businesses, funding bodies) who are affected by or contribute to the project outcomes.

Outcome Mapping

Inputs: Identify resources (e.g., financial investments, time, materials) contributed to the project.

Outputs: List tangible results of the project activities (e.g., number of housing units built, jobs created).

Outcomes: Map qualitative and quantitative changes resulting from the project, categorized as social, environmental, and economic impacts.

Monetization of Impacts

Assign monetary values to the outcomes using established proxy values and benchmarks (e.g., healthcare cost savings, reduced carbon emissions).

Use tools like Life Cycle Assessment (LCA) and Ecosystem Services Assessment for environmental aspects.

Verification and Reality Checks

Verify that the changes observed are attributable to the project by addressing key questions:

Would these changes have occurred without the project?

Were other actors responsible for the outcomes?

Did the intervention displace problems elsewhere?

Impact Calculation

Use the Net Present Value (NPV) formula to calculate the overall return:
NPV = Total value of outcomes − Total value of inputs
Express results as a ratio (e.g., 1:4, meaning €1 invested generates €4 in value).

3R Guidance

The acronym 3R stands for: Regeneration, Renewal, and Regional Development. It is an integrated assessment framework for spatial interventions in regeneration, renewal, and regional development. Recommended for large-scale interventions.
The 3R Guidance is built around the ROAMEF cycle (Rationale, Objectives, Appraisal, Monitoring, Evaluation, Feedback) and incorporates a step-by-step process for assessing and implementing spatial interventions.

Inputs:
Financial resources, in-kind contributions, and regulatory support.
Economic costs (e.g., opportunity costs, externalities).

Outputs:
Direct results such as infrastructure built, jobs created, or services provided.

Monetary values are assigned to both costs and benefits where possible:

- Economic Benefits: Increased tax revenues, reduced welfare costs, or enhanced property values.
- Social Benefits: Monetized using proxies (e.g., the value of improved health or reduced crime rates).
- Environmental Benefits: Valued using market data or proxies, such as the cost of carbon emissions avoided.

Non-monetizable impacts are addressed through qualitative scoring or Multi-Criteria Analysis (MCA).

Net Additional Impact=Gross Impact−(Baseline Impact+Leakage+Displacement)

Main application steps:

- Establish a baseline condition to understand the "no intervention" scenario.
- Define a counterfactual scenario, representing what would likely occur without the intervention (e.g., continued decline or status quo).
- Project baseline trends over time to reflect changes in social, economic, and environmental variables.

Final output: The concept of net present value is used:

NPV=sum(Bt-Ct)/(1+r)^t
where
Bt: Benefits in year t
Ct: Costs in year
rt: Discount rate
T: Time horizon

BSI Flex

The BSI Flex 390 v2.0 is a guide for value-based decision-making processes, specifically for projects in the built environment. It focuses on defining, creating, and measuring value through a sustainability-driven approach. It integrates sustainability, stakeholder priorities, and a structured approach to evaluating trade-offs.

Main application steps:
1. Strategic Objectives (These are high-level goals that align with the mission of the project and address critical areas of value to create a strong evidence base that informs priorities and underpins decisions)
- Identification of objectives based on the project mission
- Engagement with stakeholders to validate and refine these objectives
2. Value Definition Framework (Uses the Four Capitals Approach, which evaluates outcomes across: natural capital, social capital, human capital (skills, knowledge, and well-being of people), produced capital (Infrastructure, financial assets, and man-made goods))
- Maps strategic objectives to these capitals
3. Outcome Drivers
- identify and map outcome drivers to strategic objectives
- use scoring techniques to evaluate their influence and prioritize actions
4. Value Scorecard
Components:
Outcome Indicators (Metrics aligned with strategic objectives and outcome drivers)
Weighting Mechanism (Assigns importance to different outcomes based on stakeholder input)
Scoring System (Combines weighted indicators to provide an overall value score)

Final output: overall score

QALY- Based Wellbeing Valuation Methodology

This methodology aims to monetize wellbeing by using Quality-Adjusted Life Years (QALYs) as a proxy for social value. It integrates health economics and wellbeing outcomes to provide a transparent and intervention-specific valuation of social benefits and costs. It offers a structured approach to connect changes in wellbeing directly with stakeholder experiences.

Main application steps:
- Calculate the QALY value.
- Identify mental health coefficients.
- Compute generic wellbeing proxy.
- Define wellbeing sub-factors.
- Apply weightings to sub-factors.

Formula:
Total Social Value= sum (Weighting_i * QALY Proxy Value)
Where:
n is the number of wellbeing sub-factors
Weighting_ i is the percentage for sub-factor
*i*QALY Proxy Value is £10,053 for severe mental health.

Final output: Social Value monetized value

New Deal for Communities (NDC)

New Deal for Communities was a comprehensive area-based initiative aimed at regenerating 39 of the most deprived neighbourhoods in England through holistic improvements in crime reduction, education, health, housing, physical environment, worklessness, and community engagement. Interventions involved partnership-based, locally driven strategies. A specific evaluation framework, using longitudinal data to track changes, was developed to assess the results of this initiative.

Main application steps:

- baseline establishment
- implementation of interventions
- periodic evaluations (biennial household surveys)
- comparative analysis with national and local benchmarks
- reporting on six core outcomes: crime, community, housing/physical environment, education, health, and worklessness.

Calculations:

Statistical comparisons of NDC and non-NDC areas using household survey data (baseline and follow-up).
Panel data analysis to track individual changes over time.
Benchmarking changes against national and local averages to measure net impact.
Use of regression models to isolate factors contributing to observed outcomes.

Final output: performance of each NDC partnership measured over time through the outcome-related indicators and compared

Tools

Social Value Insight- Built Environment Bank

The Social Value Insight is a tool to assess built environment interventions, which relies on HACT Built Environment Bank, a suite of values that can measure the social impact of construction and supply chain activities. Social Value Insight has replaced a previous tool named "Social Value Bank Calculator".

Main application steps:

1. log on the website
2. add a project
3. select the outcomes to be assessed

Final output: Each value outcome has metrics for 3 "valuation strands" (i.e. individual wellbeing, exchequer savings or benefits, benefits to business) and 3 different values (Net Business Value; Net Individual Value; Net Exchequer Value) are indicated separately.

RESVI TM (Real Estate Social Value Index)

The Real Estate Social Value Index is a standardised tool for measuring, reporting, and improving the Social Value generated by 'in-use' real estate and infrastructure assets. In addition to measurement, it includes diagnostic (based on gap analysis) and grading (based on social value maturity). It is underpinned by the Social Value TOM System.

Main application steps:

1. Diagnostic: Initial gap analysis and survey of participating firms
2. Grading: Social Value maturity and self-assessment
3. Measurement: Social Value generated with data aligned to the Social Value TOM System TM.

Final output:

Social value monetization by asset
Social Value maturity and self-assessment results

Social Value Calculator

The Social Value Calculator is a reporting software on social value measurement developed by Loop using the National Social Value Standard.

Main application steps:

1. choose if Forecast/Monitor/Evaluate ("Type of activity") and insert details (e.g. period; costs; sector; industry; region; sub-region)
2. choose the relevant metrics
3. see the results on the dashboard, that shows the share of non-monetised KPIs on the total and allow balancing qualitative insight with quantitative metrics.

Final outputs: Social value monetization, expressed as total social value; ratio; total social value by "Pillar" of the National Social Value Standard (Environmental, Social, Economic); social value breakdown (=10 highest metric category values). In addition, social value can be decomposed also by activity; qualitative insights on the results.

Value Toolkit

The Value Toolkit is a suite of tools to make value-based decisions in the construction sector. Starting from this toolkit, the BSI Standard 2022 was developed (see also "Methodologies" section for the analysis of the BSI Standard 2023). The specific components of value ("required outcomes") can be identified by the client, as the Toolkit is neutral on what value means on any project/programme.

Main application steps:

Two different streams are available:

A. Value Definition & Measurement:

i. Value Definition: development of Value Profile for a project/programme enabling clients and their stakeholder to articulate what is important to them
ii. Measurement: Define metrics for measuring success. These are then combined with performance ranges in a Value Scorecard.

B. Client Approach: identify associated activities that help clients ensure their core values are achieved in the project/programme

i. Commercial: focuses on how clients work with the market to effectively deliver value and address risks
ii. Risk: identify risks and create a Risk Profile for the project
iii. Appointments: build a team of highly motivated individuals and organisations that will deliver all phases of a project

Final outputs: Value Scorecard; Value profile (no monetization)

RIBA Social Value Toolkit

The Social Value Toolkit for Architecture has been developed to help demonstrating and evaluating the impact of design on people and communities. It was developed for the housing sector, but it can be adapted to other settings such as workplaces, schools and universities.

The SVT has two parts:

- A library of post occupancy evaluation questions developed out of wellbeing research and consultation
- A monetisation tool that can be used as a clip on to other post occupancy evaluation processes, particularly questionnaires such as the Arup Building User Survey (BUS).

As it focuses on design, the SVT is intended to be used together with other evaluation tools or methodologies that can include the supply chain.

Main application steps:

1. obtain client permission
2. identify survey group
3. select relevant questions from the SVT library
4. create online survey; set up focus group; attend community event; doorset interviews; others
5. collate results
6. calculate monetisation using separate methodology (proxies are taken from the Social Value Bank)
7. feedback to client and Design Team as well as wider practice if relevant

Formula:

i) Social value is determined by the responses to the questionnaire.
ii) The survey results and their attribution questions are then analysed to produce a series of average scores between 0 and 1.0 for each question. Then the average scores for each outcome are multiplied for the social value proxy and the total number of people involved
iii) the deadweight proportion (found in the Social Value Bank) is applied
iv) Apply the attribution proportion
v) The deadweight and attribution adjusted impact figure can be projected across the expected lifetime

Final outputs: social value monetization

Australian Social Value Bank (ASVB)

The ASVB is a repository of values already calculated for particular outcomes focusing on crime, drugs and alcohol, education, employment, health, home, social and community outcomes, and sport. The associated tool, ASVB Value Calculator, uses these values to calculate the social impact of a program through Cost-Benefit Analysis.

It includes values for primary and secondary benefits:

- Primary benefit values are those impacts which affect the individual's quality of life directly. This can be financial (e.g. an increase in income) or non-financial (e.g. improved health or reduced crime). Primary values of non-financial outcomes are valued using the Wellbeing Valuation method, Primary financial (income) outcomes are valued by assessing the increase in income due to an outcome.
- Secondary benefit values are measures of changes in government resources such as a reduction in government expenditure or an increase in tax receipts which result from individuals achieving outcomes. Secondary benefits allow government and its agencies to spend money on services to benefit other people in society which creates social value elsewhere.

Main application steps:

1. Identify outcomes
2. Value them using Wellbeing Valuation
3. Conduct CBA or SROI analysis

Formulas:

The total social benefit is thus calculated via two steps:

1. Benefit (outcome) = [Number of beneficiaries] × [Deadweight] × [Primary and secondary values per person] × [Number of months the benefit endures]
2. Total social benefit = ΣBenefit(outcome)

Total costs are provided by the user. The tool automatically adjusts costs to account for opportunity cost and optimism bias, by increasing cost respectively by 8% and then 20%.

Total costs = [Program Costs] × [Opportunity Cost and Optimism Bias]

Final outputs:
The ASVB uses the following formula to calculate the net benefit of a program taking into account the deadweight, opportunity costs and optimism bias:

Net benefits = b - c
The ASVB also displays the benefit-to-cost ratio, calculated by the following formula:

Benefit cost ratio = b/c
Where b = [Number of beneficiaries] × [Deadweight] × [Primary and secondary values per person] × [Number of months]
c = [Program Costs] × [Opportunity Cost and Optimism Bias]