# Integrating social and responsible innovation for sustainable entrepreneurship: A metasynthesis of contemporary case studies

10.29073/jer.v4i1.59

**Received:** December 10, 2025.
**Accepted:** January 9, 2026.
**Published:** Month XX, 20XX.

**Author 1 (Corresponding Author):** Luciana da Silva, University of Vale do Rio dos Sinos, Brazil, lucianamaines@unisinos.br.
**Author 2:** Fernanda Jorge, Federal University of Rio Grande do Sul, Brazil, fe.sjorge@gmail.com.
**Author 3:** Gabriela Duarte, University of Vale do Rio dos Sinos, Brazil, gabrielazortea@gmail.com.
**Author 4:** Yuri Hamdan, University of Vale do Rio dos Sinos, Brazil, yuridh@outlook.com.
**Author 5:** George Canfield, University of Vale do Rio dos Sinos, Brazil, george.canfield@impacthub.net.

## Abstract

This article analyzes the possibilities for integrating Social Innovation (SI) and Responsible Innovation (RI) to guide the development of models of innovation and sustainable entrepreneurship. To this end, a metasynthesis was carried out, analyzing qualitative case studies published between 2021 and 2025, totaling 51 articles. The analysis resulted in four analytical propositions that distinguish the two fields in terms of focus (resolution of social demands versus ethical reflection), impact (systemic transformation versus normative alignment), forms of engagement (organic versus institutionalized collaboration) and locus of origin (bottom-up versus top-down). Based on these propositions, the study proposes a set of integrative guidelines for hybrid initiatives — reflective co-creation, ethical scalability, polycentric governance, and multidimensional evaluation — applicable to social enterprises, impact startups, sustainability-oriented organizations, and community initiatives. These guidelines articulate the normative foundations of IR with the participatory and contextual processes of SI, contributing to the theoretical advancement of the field of innovation and entrepreneurship guided by social, environmental and ethical values. The main contribution lies in the construction of an analytical model capable of guiding practices, public policies and organizational strategies committed to the transition to more responsible and transformative forms of innovation.

**Keywords:** Metasynthesis; Responsible Innovation; Social Innovation; Sustainability; Sustainable Entrepreneurship.

## 1. Introduction

As a society, we evolve in different ways. If we consider the industrial revolutions, for example, we started with steam engines and mechanical looms, and we reached the era of information technology, bringing man and machine closer together. Each phase brought with it innovations and transformations that altered the standards of institutions as a whole. New products, new forms of consumption, new experiences, and new social and environmental challenges typical of the evolutionary trajectory are placed in our daily lives.

Reflecting on the implications of these transformations also becomes part of the agenda in this evolutionary scenario. Increasingly complex challenges arise as technological and social evolution advance. Responding to them through new forms of innovation, aimed not only at the market but also at solving social and environmental problems, can contribute to a journey of growth and development across the economic, social, and environmental spheres, responsibly and inclusively.

In this scenario, the combination of social innovation and responsible innovation becomes essential for strengthening sustainable entrepreneurship practices and models, aligning innovative processes with long-term social, environmental, and economic impacts.

In this context, the assumptions of Social Innovation and Responsible Innovation emerge, seeking to address and fill gaps in neglected or absent social demands in the service of market dynamics. Social innovation comprises solutions to social problems (Taylor, 1970) that positively impact a community or social collective. In turn, Responsible Innovation is defined as the way innovations are produced, which must be technically viable, profitable, socially desirable, and ethically acceptable (Von Schomberg, 2013; Owen, Stilgoe & Macnaghten, 2012).

From this perspective, the research question is to identify the convergences and divergences between the principles and practices of social innovation and responsible innovation, and how they can be integrated into initiatives seeking sustainable impacts. In light of the assumptions presented, the research is justified because both social innovation and responsible innovation emerge as responses to ethical, social, and environmental crises and share values such as stakeholder inclusion, sustainability, and social justice. However, few studies analyze, in a comparative or integrated way, how these two fields dialogue with or complement each other in theory and practice.

To deepen these aspects, the objectives of this study are: to identify the main concepts, principles, and dimensions of social innovation and responsible innovation; to analyze the points of convergence and divergence between the two fields; and to propose integrated guidelines for hybrid initiatives. Considering the objective of integrating two partially overlapping conceptual fields — social innovation and responsible innovation — we chose to use the metasynthesis approach proposed by Hoon (2013), which allows us to critically reinterpret the findings of primary studies to build a new theoretical understanding.

To meet the research proposal, the study presents the theoretical foundation in the next section, followed by the methodology section. Section four discusses the analysis of results, and section five concludes.

## 2. Theoretical Foundations

### 2.1. Social Innovation: Foundations, Specificities and Challenges

Innovation, as it is widely understood, refers to the creation or improvement of new ideas with the intention of economic gain (Pol & Ville, 2009). This paradigm was popularized by one of the great scholars of innovation, the economist and political scientist Schumpeter (1982), who argued that innovation is the engine of economic development in a capitalist economy. The OECD (2018, p.20) defines innovation as "a new or improved product or process (or combination thereof) that differs significantly from the unit's previous products or processes and that has been made available to potential users (product) or put into use by the unit (process)". For example, an innovation can take four different forms: i) product (inclusion of a new good or service or relevant improvement to existing ones); ii) organizational (introduction of new organizational methods or business practices); (iii) process (a new or significantly improved method of production) and; v) marketing (new techniques that result in significant changes in the design of the product and/or service) (OECD, 2018).

Given this context, social innovation (SI) can be considered a subtype of innovation, distinct from technological innovation, in that it prioritizes the social dimension as its main objective. In his seminal study, Taylor (1970) approaches SI as a means of addressing social needs through the introduction of a social invention, that is, a "new way of doing things". It is a "new solution" or a "new response", which is deliberately undertaken to offer a solution to an identified social problem that can affect all sectors of society and also suggests that this change must be sustainable (Cloutier, 2003). According to Cajaiba-Santana (2014), the ultimate goal of social innovation is to propose solutions that result in changes in the social sphere, which are triggered by collective action.

In this sense, social innovation is a process often initiated by communities and individuals proposing new ideas; when these ideas are disseminated beyond the context in which they are initially implemented and have a lasting

impact, we can call them social innovations (Westley & Antadze, 2010). Consequently, solutions do not necessarily arise from companies, large institutions, or research institutes, but can come from modest initiatives, such as groups, communities, and users, which further distinguishes it from technological innovation (Benneworth & Cunha, 2015; Howaldt et al., 2016). Table 1 illustrates the main elements that differentiate, conceptually and empirically, technological innovation from social innovation.

**Table 1:** The main elements that differentiate technological innovation from social innovation are.

| Prospect | Technological innovation | Social innovation |
|---|---|---|
| Application | Improvement of a product, process, or service. | Social issues, well-being of individuals and the collectivity. |
| Purpose | Focus on technological advancement and competitive advantage for increase in profits. | Social and sustainable, which may or may not occur from technological advancement. |
| Benefit | Specific or private group. | Society as a whole or communities in need Specific. |
| Social impact | It is not required. | It is necessarily required. |
| Impact on sustainable development | It addresses only the economic pillar. | It addresses the three pillars of sustainability: social, economic and environmental. |
| Value creation | Appropriation of economic value, may or may not add value social. | Creation of social value, from the addition of the social and environmental. |
| Process by which it occurs | Closed. Protected through intellectual and technological mechanisms and protection, in order to prevent replication. | Diffuse, favouring the transposition of knowledge between organizations and communities, stimulating the replication. |

**Source:** By the authors, based on Schumpeter (1912); Pol & Ville (2009); Cajaíba-Santana (2014); Howaldt et al. (2016); Bilali (2018); Bataglin et al., 2021.

Two aspects are highlighted in the perspectives summarized in Table 1: first, differences in application, purpose, and beneficiaries; and second, the process of social innovation. Unlike technological innovation, social innovation has as its main characteristic the collaborative process, since, as highlighted by Bittencourt and Bignetti (2012, p.16), "by definition, it implies the participation of all the actors involved, in a process of social construction, and the use of networks and mechanisms for coordinating activities facilitate linkage, communication and joint action."

Therefore, it requires interaction between the social sectors of government, business, and civil society (Howaldt et al., 2016), and can be developed, exclusively or collaboratively, in the nonprofit sectors, public, private, or even informally, by individuals, families, communities, and social movements (Caulier-Grice et al., 2012). Given this and other aspects, the process of social innovation becomes complex, requiring the adoption of several mechanisms to acquire the necessary resources for its implementation, especially financial, infrastructure, and institutional and political support (Bufali et al., 2023).

To achieve a systemic and lasting impact, which is its main objective (Cajaiba-Santana, 2014), social innovation needs to be validated by its users, incorporated into its environment, become a common practice, and change existing structures and systems. However, for this to occur, solutions need to be scaled up and sustained to generate large-scale impact, which represents one of the main challenges of social innovation (Moore et al.,

2015). The lack of long-term funding, organizational and leadership tensions, and the need for continuous adaptation to dynamic environments are among the factors to consider when discussing scalability in social innovation (Moore et al., 2015).

Thus, social innovation is a multifaceted process that can involve multiple actors and present complex implementation challenges. While expanding its transformative potential, its characteristics also impose significant challenges along the way. By comparing these aspects with other value-driven innovation approaches, such as responsible innovation, we can highlight and analyze potential convergences and differences.

### 2.2. Responsible Innovation: Foundations, Specificities and Challenges

Responsible Research and Innovation (RRI) emerge as a critical approach to the traditional way of producing science and innovation, proposing a new logic of governance guided by social, ethical and sustainable values. RRI seeks to align research and development processes with the expectations and needs of society, promoting innovation that is not only technically feasible or economically profitable, but also socially desirable and ethically acceptable (Von Schomberg, 2013; Owen, Stilgoe & Macnaghten, 2012).

According to Stilgoe et al. (2013), RRI is supported by four interrelated dimensions: i) anticipation — identification and analysis of the possible impacts and risks of innovation; ii) reflexivity — questioning of the assumptions, values and purposes that guide the research; iii) inclusion — engagement of multiple stakeholders in the decision-making process; and iv) responsiveness — ability to adapt innovation paths to new knowledge and social demands. These dimensions operate as guiding principles for scientific institutions, companies, policymakers, and other actors involved in innovation.

While traditional innovation is often guided by goals of competitiveness, economic growth, and technological advancement, responsible innovation introduces a more normative perspective by emphasizing the “why” and "for whom" of innovation (Owen et al., 2012). Thus, it shifts the focus from innovation as an end in itself to innovation as a means of addressing major societal challenges — such as climate change, digital inclusion, health equity, or social justice — and is particularly relevant in contexts of uncertainty and vulnerability (van Oudheusden, 2014; Stilgoe, 2020).

RRI is therefore an interdisciplinary and cross-sectoral field that requires practices of open dialogue between science and society, participatory methodologies, and mechanisms for continuous evaluation of the socioeconomic and environmental impacts of innovation. Among its main challenges, the difficulty of institutionalizing its principles in traditional research and innovation structures stands out, especially in environments guided by productivist metrics and market logics (Burget, Bardone & Pedaste, 2017). In addition, there are tensions inherent in combining accountability with adaptive flexibility, as well as ethical dilemmas about who defines what is "socially desirable" (Owen et al., 2013).

Table 2 summarises the main elements that characterise responsible innovation compared to traditional innovation.

**Table 2:** Key elements that differentiate traditional innovation from responsible innovation.

| Prospect | Traditional Innovation | Responsible Innovation |
|---|---|---|
| Purpose | Competitiveness, efficiency, profit | Social value, equity, sustainability |
| Social participation | Limited or advisory | Inclusive, participatory and deliberative |
| Anticipation of impacts | Focus on technical risks | Proactive ethical, environmental and social analysis |
| Decision-making processes | Linear, top-down | Reflective, adaptive and responsive |
| Evaluation of results | Based on technical and economic performance | Based on social and environmental impacts |
| Application examples | Pharmaceutical industries, information technology | Public health, biotechnology, energy, and smart cities |

**Source:** By the authors, based Owen et al. (2012); Stilgoe et al. (2013); Von Schomberg (2013); Burget et al. (2017); Stilgoe (2020).

The integration of IRR principles into scientific practice and innovation management also requires structural changes in how projects are conceived, funded, and evaluated. It includes strengthening organizational capacities for dialogue with external stakeholders, creating qualitative indicators of social impact, and developing governance structures sensitive to cultural, territorial, and institutional diversity (Mejlgaard et al., 2018).

Despite its theoretical and normative relevance, the RRI approach is the target of significant criticism. De Saille (2015) argues that the concept of RRI has a strong Eurocentric bias, having emerged in the context of the European Union's innovation policies, which may limit its applicability in other cultural and institutional realities. Blok and Lemmens (2015) denounce the ambiguity of the concept, highlighting its dependence on a narrow technological and economic vision, which weakens its practical application in the face of the complexity of real innovation processes. In addition, the instrumentalization of social participation is questioned when stakeholder engagement is reduced to a formal requirement without ensuring effective influence over decision-making, thereby compromising the credibility of the participatory process.

Like social innovation, responsible innovation broadens the scope of the actors involved and the significance of the value generated by innovation. However, while the former tends to emerge from local contexts and social practices, RRI often starts from public policies on science and technology, which are institutionalized in development programs and regulatory frameworks, especially in the global north. Despite their distinct trajectories, both share the ambition to align innovation more closely with contemporary social challenges and, therefore, present areas of convergence and complementarity that deserve exploration.

## 3. Methodology

Since the objective of the study is to understand the convergences and divergences between the principles and practices of social innovation and responsible innovation, and how they can be integrated into initiatives seeking sustainable impacts, the authors chose to conduct a meta-synthesis of qualitative case studies. According to Hoon (2013), the methodology is suitable for integrating fragmented literature to develop a deeper, more integrative theoretical understanding. This approach is especially useful when seeking to connect emerging domains of research, such as social innovation and responsible innovation, and to generate conceptual contributions from multiple qualitative sources.

Over the past few years, there has been a growth in studies that adopt this methodology, including those connected to social innovation, such as Rocha et al. (2023), who analyzed the generation of social impact, or with responsible innovation, such as Silva et al. (2019), who addressed the role of external stakeholders.

The metasynthesis of qualitative case studies, proposed by Hoon (2013), presupposes a specific research design comprising eight stages. The first step is formulating the research question. In this study, the authors chose to jointly analyze the fields of social innovation and responsible innovation, noting that both address contemporary ethical, social, and environmental challenges. Although with different origins, both share normative fundamentals, such as valuing the inclusion of multiple stakeholders, commitment to sustainability, and orientation towards transformative social impacts. From this understanding, the research question emerges: What are the convergences and divergences between the principles and practices of social innovation and responsible innovation, and how can they be integrated into initiatives seeking sustainable impact?

The second step is to locate relevant searches. To this end, extractions were carried out in June 2025 in the selected databases, Scopus and Web of Science, defining only articles (already excluding book chapters, editorials, etc.), from the last 5 years (2021-2025), in the 10 scientific journals with the highest number of publications, in open access, in the area of "business" and "economics". The search terms used were (1) "social innovation" and (2) "responsible research and innovation" OR "responsible innovation". In all, 402 articles were extracted, as shown in Table 3.

**Table 3**: Articles extracted from databases.

| Database | Social Innovation | Responsible research and innovation OR Responsible innovation | Total |
|---|---|---|---|
| **Scopus** | 61 | 105 | **166** |
| **Web of Science** | 83 | 153 | **236** |
| **Total** | **144** | **258** | **402** |

**Source:** By the authors.

The authors used the Rayyan platform (https://www.rayyan.ai/) to analyze the articles. Of the 402 studies, 109 were duplicates, leaving 293 articles.

The third stage concerns the inclusion and exclusion criteria. Since the selected methodology was to analyze qualitative case studies, the articles were evaluated, and those that did not meet the criteria were excluded. At least two authors evaluated each article to ensure the reliability of the choice. In the end, 51 articles were considered.

The fourth step concerns the extraction and coding of data. To this end, a shared spreadsheet was created for each author to include information about the articles that performed the analysis. To enhance analytical rigor, multiple authors independently coded the studies, followed by iterative discussions to resolve discrepancies and reach consensus on interpretations. Information such as title, author, journal, year of publication, authors, location (geographical), study objective, concept used, context, area of application, main results, and other relevant information was extracted.

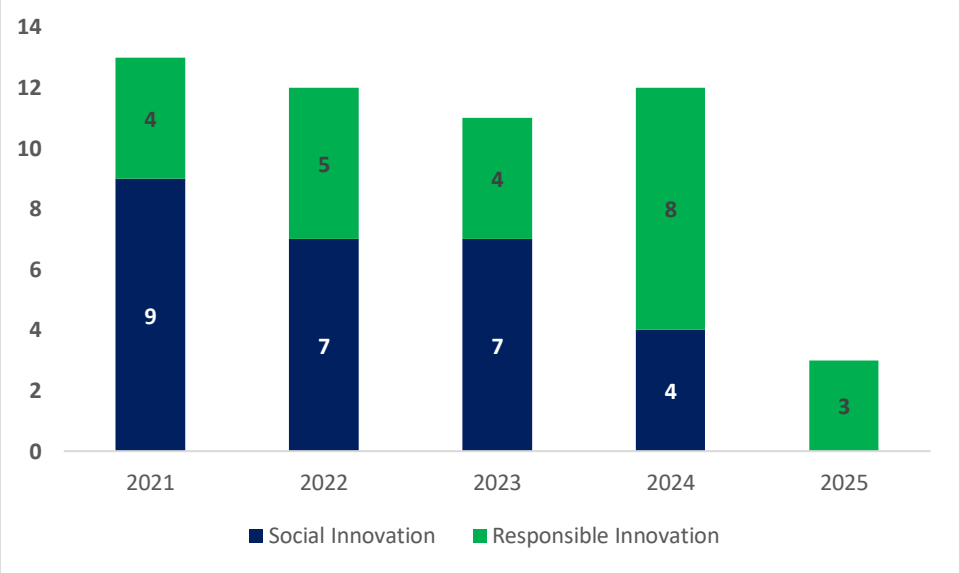
The remaining steps, (5) analyzing at a specific case level, (6) synthesizing at a cross-study level, (7) constructing theory from metasynthesis, and (8) discussion, are summarized in the following sections.

## 4. Analysis of the Results

### 4.1. Descriptive Analysis of the Included Studies

This subsection presents a descriptive overview of the studies selected for this meta-synthesis. The analysis includes quantitative and qualitative aspects that allow us to understand the profile and context of the studies that addressed the themes of social innovation and responsible innovation during 2021-2025. Of the 51 selected studies, 27 address the theme of social innovation and 24 of responsible innovation. The evolution of studies over the years is shown in Figure 1.

**Figure 1:** Publications per year.




**Source:** By the authors.

Between 2021 and 2014, the total volume of studies published on the themes remained practically the same. Between 2021 and 2024, the theme of social innovation surpassed that of responsible innovation, with 9, 7, and 7 studies published, respectively. However, in 2024, the trend reversed, with 8 studies on responsible innovation and 4 on social innovation. The low number of studies in 2025 is likely due to the incompleteness of that year. However, the 3 selected studies focus on responsible innovation.

Given that social innovation and responsible innovation are generally strongly related to the cultural and socioeconomic contexts in which they are developed, it was decided to analyze the countries where the data were collected for the elaboration of the studies. In a general context, and considering separately the countries that appear together, the most recurrent are Spain, Italy, Austria, the United States, and the United Kingdom, with 4 studies each. Next, with three studies each, Brazil, China and Scotland stand out. South Africa, Canada, the Netherlands, and France follow with two studies each. When analyzing the ten most recurrent countries by theme (Table 4), we noticed that the United Kingdom, the United States, Austria, Brazil and China stand out in the theme of responsible innovation, while Spain, Italy and Scotland stand out in the theme of social innovation. This distinction may indicate both the degree of institutionalization of these concepts in the countries and the development and implementation of public policies that promote such innovations.

**Table 4:** Most recurrent countries by theme.

| Country | Responsible Innovation | Social Innovation | Total |
|---|---|---|---|
| United Kingdom | 4 | 0 | 4 |
| United States | 3 | 1 | 4 |
| Spain | 1 | 3 | 4 |
| Italy | 1 | 3 | 4 |
| Austria | 3 | 1 | 4 |
| Brazil | 3 | 0 | 3 |
| China | 3 | 0 | 3 |
| Scotland | 0 | 3 | 3 |
| Canada | 2 | 0 | 2 |
| Netherlands | 2 | 0 | 2 |

**Source:** By the authors.

To determine the predominant level of analysis for each theme, a categorization was performed based on the origin of the data collection. Studies whose data source was national projects and sectors of the economy were categorized as macro. Studies focusing on organizations such as social enterprises, universities, and nonprofit entities were categorized at the meso level of analysis, and studies aimed at community groups, local centers, and specific populations were categorized as micro. Table 5 presents the data sources for the studies on social and responsible innovation.

**Table 5:** Origin of data from social innovation studies.

| Level of Analysis | Social Innovation | Responsible Innovation |
|---|---|---|
| Meso | 19 | 17 |
| Micro | 4 | 6 |
| Macro | 4 | 1 |

**Source:** By the authors.

There is a predominance of studies that address cases in organizations. The studies collected data on social enterprises (5), university ecosystems (3), nonprofit entities (2), startups (2), local production systems (2), private enterprise (1), voluntary sector (1), microenterprises (1), cooperative (1), and social entrepreneurship ecosystem (1). The studies that used independent groups/community centers (2) and specific groups of people (2) as the unit of analysis approached social innovation from immediate social contexts, focusing on experiences and perceptions. At the macro level, we have studies that addressed specific national projects (3) and one study that addressed the public sector as a whole.

Responsible innovation studies also prioritize meso-level analyses, as shown in Table xx. Such studies are developed in academic projects, research networks and centers (5), private companies (2), industries (2), health sector (2), startup (1), cooperative (1), university (1), collaboration network (1), energy sector (1) and science and high technology sector (1). Macro-level studies focus on large-scale national projects (6), which address social issues such as mobility, nanotechnology, and urban development. The only micro-level study was conducted with institutional entrepreneurs funded by the European Union's Horizon 2020 Research and Innovation program.

In summary, both themes prioritize analysis in organizational contexts. Social innovation has a more balanced distribution across levels of analysis, which aligns with its ability to engage with more diverse and decentralized social problems. Responsible innovation is clearly more closely associated with the macro level, with strong development in projects led by the public sector, reinforcing their alignment with structured policy agendas.

### 4.2. Social Innovation and Responsible Innovation: Conceptual Distinctions, Purposes, and Impacts

Although Social Innovation (SI) and Responsible Innovation (RI) can be observed in the same context or object of analysis, they have distinct definitions, characteristics, and purposes, even though they converge in some respects. Both sciences devote attention to long-term social, environmental, and economic issues.

Regarding SI, efforts are made to address specific social needs through new ideas (Lauren et al., 2022). These, in turn, should be characterized by generating significant and lasting changes in systems that benefit the authors' network (Chen *et al*., 2024). SI-driven solutions often involve institutional voids or unresolved societal challenges (Sacchetti, 2022).

RI, on the other hand, is characterized by its reflexivity in research and innovation, especially regarding its implications for society. For example, authors Dabars and Dwyer (2022) emphasize the importance of approaching transformative technologies with care and foresight. The alignment between market (financial) outcomes of innovations with relevant societal objectives should be considered before these technologies are offered to institutions.

In the cases analyzed, we observed a contrast between social innovation initiatives and those of responsible innovation. For example, cases focused on social innovation generally originate from localized social demands—such as community initiatives aimed at inclusion or local development—while cases of responsible innovation more frequently emerge from institutional or research-oriented contexts, where ethical reflection precedes or accompanies technological development. Although both aim to contribute to societal benefits, the empirical cases reveal different logics regarding the framing of the problem, the origin of the initiatives, and the paths to impact. To contribute to a definition of the two concepts, the proposition is presented:

**Proposition 1**: Social Innovation aims to meet latent social demands, while Responsible Innovation aims to reflect on innovations available in the market or in the development phase.

Generating positive and socially accepted impact is central to both SI and IR principles. Social Innovation is intrinsically driven by the need to address social challenges and create collective value, actively seeking social change and enhancing people's well-being, quality of life, and social relationships (Gustafssona *et al*., 2023). It manifests itself through "new ideas (products, services, and models) that simultaneously meet social needs and create new social relationships or collaborations" (Sheik *et al*., 2023; Tuckerman, 2022), resulting in profound social changes by altering perceptions, behaviors, and structures. SI-related impacts include:

- Achieving Social Change: Social innovation is a means to achieve social change, with different approaches to "openness" (such as open social innovation) leading to different ways to generate this change (Tuckerman, 2022). There is a tension in social enterprises between maximizing social impact and ensuring financial sustainability. Voluntary organizations and co-creation in urban planning show how social innovation can overcome structural barriers and scale solutions (Khan *et al*., 2023).

- Development and Well-being: Strengthens microenterprises, improves quality of life, and promotes behavioral and social structural changes (Chen *et al*., 2024; Gustafssona *et al*., 2023; Kassim *et al*., 2022).
- Empowerment and Inclusion: Digital technologies expand access, citizen participation, and inclusion of marginalized populations, strengthening fairer urban ecosystems (Petersen & Kruss, 2022; Paredes & Vigiola, 2024). The combination of people-centered design and technology powers sustainable, high-impact solutions (Christopoulos *et al*., 2023).
- Governance and Social Relations: Proposes new models of self-management and collaboration, as alternative forms of urban governance with lower hierarchy (Sheik et al., 2023; Morandeira-Arca *et al*., 2021; Petersen & Kruss, 2022). Voluntary organizations and co-creation in urban planning show how social innovation can overcome structural barriers and scale solutions.

In turn, Responsible Innovation (RI), especially in the field of research and innovation (RRI), acts as a normative framework that seeks to proactively direct research and innovation towards desired outcomes, aligned with social, ethical, and environmental values (Lehoux *et al*., 2021; Heltzel *et al.*, 2022). The impacts related to IR include:

- Addressing major societal challenges: RRI seeks to align the research and innovation process with societal needs and expectations, and to address challenges such as the Sustainable Development Goals (SDGs), climate change, and inclusive growth. It is critical to address these challenges and promote a sustainable future (Lehoux *et al*., 2021; Degbey *et al*., 2024).
- Ethical, Social, and Environmental Value Creation: RI is a normative concept driven by values and purposes, requiring the alignment of economic, social, and environmental objectives for responsible value creation **(**Lehoux *et al*., 2021). Organizations that produce responsible innovations in health, for example, strive to meet ethical, economic, social, and environmental principles **(**Lehoux *et al*., 2021).
- More Acceptable Scientific Outcomes: RRI seeks to ensure that scientific outcomes and outputs are more ethically acceptable, sustainable, and socially desirable (Heltzel *et al*., 2022).

Both social innovation and responsible innovation are focused on generating positive, lasting change, whether through the satisfaction of social needs, the transformation of systems, the empowerment of communities, the creation of shared value, or the direction of science and technology toward a more equitable and sustainable future. A comparative reading of the cases also reveals distinct interpretations of impact between the two approaches. On the one hand, social innovation cases predominantly describe impact in terms of observable and lasting changes in social relations, community practices, or local systems, often emphasizing empowerment, inclusion, and collective well-being. On the other hand, responsible innovation cases frame impact primarily as the alignment of research and innovation processes with ethical standards, social expectations, and long-term sustainability goals, even when a broader systemic change is not immediately observable. These empirical differences underpin a differentiated understanding of impact in social innovation and responsible innovation. Thus, proposition 2 proposes:

**Proposition 2**: In Social Innovation (SI), impact refers to lasting social change. In Responsible Innovation (RI), the impact lies in the ethical and social alignment of research and innovation processes with society's real needs.

Both approaches also value multistakeholder collaboration as a key element for the development and implementation of innovations with social and ethical impact. However, the analysis of the articles reveals important nuances.

Several studies of social innovation demonstrate that collaboration occurs in a more organic, horizontal manner, often involving local communities, marginalized groups, and grassroots organizations. This participation is central to the conception and execution of the solutions (Bufali et al., 2023; Tuckerman, 2022). In responsible innovation, stakeholder inclusion is often articulated through institutional structures or public policies, assuming a more normative or formalized role, as observed in European projects linked to Horizon 2020. This difference in the

mode of engagement suggests that collaboration in SI is more distributed and bottom-up. In IR, it is articulated from regulatory or scientific contexts.

While social innovation case studies consistently describe stakeholder engagement as emergent, informal, and embedded in local social relations, responsible innovation case studies tend to institutionalize participation through formal procedures, policy frameworks, or research protocols. This contrast suggests different governance foundations underpinning collaboration in each approach. This leads to proposition 3:

**Proposition 3**: Stakeholder collaboration is central to both approaches, but occurs in a more distributed, spontaneous manner in Social Innovation and in a more institutionalized, standardized manner in Responsible Innovation.

The analysis of data origin levels also confirms a significant structural divergence. RI studies are mostly developed from projects at the macro level, led by public policies, research centers and universities (17 meso, 6 macro, 1 micro). SI studies, on the other hand, show a more balanced distribution between meso, micro and macro levels (19 meso, 4 micro, 4 macro), reflecting its more decentralized and emerging nature. This evidence reinforces the argument that RI has a stronger top-down bias, while SI operates mostly with a bottom-up logic, though it is also tied to established institutions.

**Proposition 4**: Responsible Innovation tends to emerge in formal institutional contexts with top-down approaches, while bottom-up dynamics, connected to communities, social organizations, and collaborative networks, more often enable Social Innovation.

### 4.3. Integrative Guidelines between Social and Responsible Approaches

Based on the analysis of the 51 qualitative studies and the previous propositions, this study proposes a set of guidelines that guide the convergence between Social Innovation (SI) and Responsible Innovation (RI), resulting in a hybrid model focused on sustainability. This proposal responds to the call in the literature for more intersectional approaches, capable of articulating social, ethical, and environmental values in contexts of high complexity (Stilgoe et al., 2013; Cajaiba-Santana, 2014; Lehoux et al., 2021).

Social innovation, with its emphasis on citizen participation, local impact, and systemic change (Moulaert et al., 2007; Westley & Antadze, 2010), makes important contributions to the social rooting of innovations. Responsible innovation, on the other hand, adds to the equation the principles of anticipation, reflexivity, inclusion, and responsiveness (Owen et al., 2012; Von Schomberg, 2013), which are fundamental to aligning innovation with collective values and future needs. Integrating these approaches requires rethinking traditional models of innovation and proposing organizational and institutional practices that are both socially relevant and ethically oriented.

Based on this, we propose four integrative guidelines that articulate the strengths of the two approaches:

**Guideline 1 — Reflective Co-creation: integrating social deliberation and ethical anticipation**

Inspired by the participatory practices of SI and the anticipation and reflexivity dimensions of IR (Stilgoe et al., 2013), this guideline proposes that problem identification and solution design occur in continuous cycles of listening, learning, and critical reflection. Innovation must not only emerge from the community but also consider future scenarios, ethical dilemmas, and potential externalities. Methods such as participatory foresight and social labs can operationalize this integration.

**Guideline 2 — Ethical and Responsive Scalability: Expand with contextual responsibility**

Although social innovation faces scalability difficulties (Moore et al., 2015), IR contributes mechanisms for responsible adaptation and continuous evaluation. The guideline proposes expanding solutions that meet clear ethical criteria, respect local values, and promote distributive justice. It involves creating adaptive feedback

mechanisms and evaluating impacts not only quantitatively, but also according to qualitative criteria, such as equity, legitimacy, and social acceptability (Lehoux et al., 2021; Degbey et al., 2024).

**Guideline 3 — Polycentric and Multistakeholder Governance: aligning social networks and institutional structures**

Based on Ostrom (2010) and Howaldt et al. (2016), we propose a governance that combines the spontaneity and horizontality of SI with the institutional capacity of RI. Instead of centralization or excessive informality, it is suggested that polycentric arrangements be formed, in which universities, governments, companies, NGOs, and communities share authority and co-responsibility for innovation. It requires organizational capacities for cross-sectoral collaboration, institutional learning, and policy articulation.

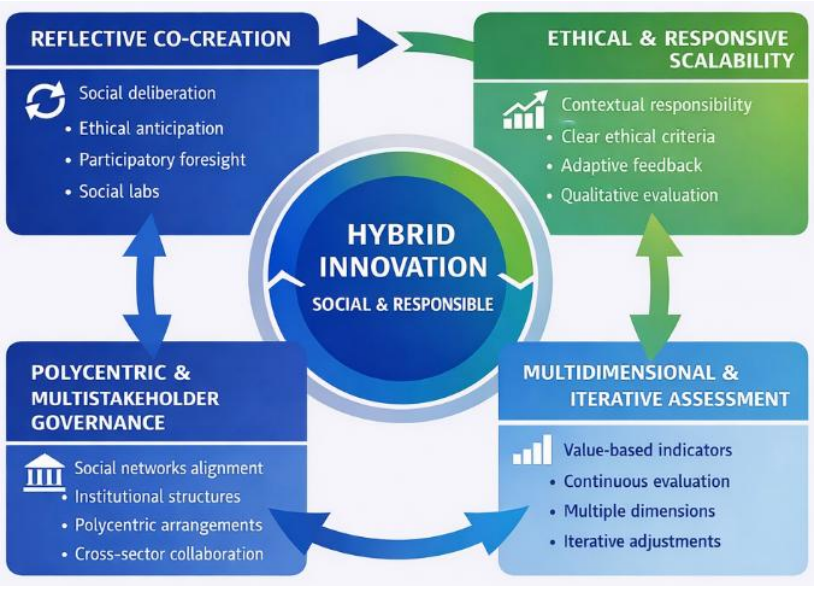
**Guideline 4 — Multidimensional and Iterative Assessment: Incorporating Values into the Measurement Process**

Evaluating hybrid initiatives should go beyond technical performance metrics or social outreach. Combining the RI accountability criteria (Burget et al., 2017) and the SI systemic transformation indicators (Cajaiba-Santana, 2014), this guideline proposes continuous, iterative, and multidimensional evaluation systems. The indicators should cover social impact, ethical value, institutional transformation, and perceived legitimacy, allowing for adjustments throughout the innovation cycle.

These guidelines do not form a prescriptive model, but rather a flexible analytical framework that can guide managers, policymakers, and researchers in the design and evaluation of sustainability-oriented innovations. Together, they point to the construction of a hybrid innovation field, where ethics, impact and inclusion go hand in hand.

In addition to guiding organizational practices and social strategies, these guidelines offer relevant subsidies for the design of public innovation policies. By articulating ethical foundations and citizen participation, the hybrid model can inspire more responsive, collaborative, and context-sensitive state initiatives, especially in areas such as health, education, the environment, and sustainable urban development. Figure 2 synthesizes these four integrative guidelines, visually illustrating how principles of Social Innovation and Responsible Innovation converge into a hybrid innovation logic.

**Figure 2:** Integrative Guidelines for Hybrid Innovation Models.




**Source:** By the authors.

Taken together, the four integrative guidelines synthesized in Figure X do not constitute a prescriptive model, but rather an analytical framework that highlights how social and responsible innovation logics can be articulated in practice. By combining bottom-up social dynamics with top-down ethical and governance-oriented mechanisms, the framework underscores the importance of reflexivity, scalability, governance, and evaluation as interdependent dimensions of hybrid innovation. This integrative perspective advances current debates on sustainable entrepreneurship by moving beyond isolated approaches and offering a coherent lens for understanding how value-driven innovations can be designed, governed, and assessed in complex societal contexts.

## 5. Conclusion

This article contributed to the theoretical deepening of the fields of Social Innovation (SI) and Responsible Innovation (RI) by proposing a systematized comparative analysis based on a metasynthesis of qualitative case studies published between 2021 and 2025. From the identification of convergences and divergences between these approaches, the study showed that both share normative foundations oriented to social transformation and sustainability, even though they operate with different logics, structures and purposes.

The main theoretical contribution lies in the formulation of four analytical propositions that differentiate SI and IR in terms of focus (social demand versus ethical reflection), impact (systemic transformation versus normative alignment), stakeholder engagement (organic versus institutionalized) and origin of initiatives (bottom-up versus top-down). Based on these propositions, the study proposes a set of integrative guidelines that guide the constitution of hybrid models of innovation, anchored in reflexive co-creation, ethical scalability, polycentric governance and multidimensional evaluation.

This hybrid model represents a relevant conceptual advance by proposing an overcoming of the limits of one-dimensional approaches, reinforcing the importance of integrating social, ethical, and environmental values into innovation processes. By systematizing the elements that favor the articulation between emerging practices and institutional structures, the proposal contributes not only to the construction of more robust analytical frameworks but also to the improvement of public policies aimed at sustainable innovation. Governments and policymakers can benefit from the guidelines presented here to develop more inclusive, responsive, and ethically driven instruments and programs — particularly in sectors such as education, health, smart cities, and socio-environmental transitions.

Among the limitations of this study, the scope of the metasynthesis stands out: it is restricted to qualitative case studies in open access and in the domain of applied social sciences, which may limit the analysis's interdisciplinary breadth. In addition, metasynthesis does not allow empirical generalizations, being more suitable for theoretical construction and refinement.

As a future research agenda, the empirical deepening of the proposed model is suggested through multi-case studies in different sectors and territorial contexts, especially in the Global South. Longitudinal investigations into the transformative effects of hybrid initiatives, as well as the development of evaluative instruments to capture their ethical and social impacts, represent promising avenues to consolidate the field of value-driven innovation.

## References

Allal-Chérif, O., Guijarro-Garcia, M., & Ulrich, K. (2022). Fostering sustainable growth in aeronautics: Open social innovation, multifunctional team management, and collaborative governance. *Technological Forecasting and Social Change*, *174*, 121269.

Amoamo, M., & Ruckstuhl, K. (2024). Conceptualizing RRI from a Global South perspective through Indigenous innovation practices in Aotearoa New Zealand's high-tech science sector. *Journal of Responsible Innovation*, *11*(1), 2414528.

Bataglin, J., Semprebon, E., Carvalho, A. C., & Porsse, M. (2021). Social Innovation: A Study of International Scientific Publication through Network Analysis. *Brazilian Business Review*, *18*(4), p.450–467.

Benneworth, P. & Cunha, J. (2015). Universities' contributions to social innovation: reflections in theory & practice. *European Journal of Innovation Management*, *18*(4), 508–527.

Biegelbauer, P., Wiarda, M., Wagner, P., Lackinger, C., Nieminen, M., Lehtinen, S., Yaghmaei, E., & Ampolini, A. (2025). What drives change? Dynamic institutionalizations of responsible research and innovation in organizations: reflections on the role of institutional entrepreneurship. *Journal of Responsible Innovation*, *12*(1), 2479323.

Blok, V., & Lemmens, P. (2015). The emerging concept of responsible innovation: Three reasons why it is questionable and calls for a radical transformation of the concept of innovation. In B. J. Koops, I. Oosterlaken, H. Romijn, T. Swierstra, & J. van den Hoven (Eds.), *Responsible Innovation 2: Concepts, approaches, and applications* (pp. 19–35). Springer. https://doi.org/10.1007/978-3-319-17308-5_2

Bufali, M. V., Calò, F., Morton, A., & Connelly, G. (2023). Scaling social innovation: A cross-cultural comparative study of school-based mentoring interventions. *Journal of Social Entrepreneurship*, 1–27.

Burget, M., Bardone, E., & Pedaste, M. (2017). Definitions and conceptual dimensions of responsible research and innovation: A literature review. *Science and Engineering Ethics*, 23(1), 1–19. https://doi.org/10.1007/s11948-016-9782-1

Cajaiba-Santana, G. (2014). Social innovation: Moving the field forward. A conceptual framework. *Technological Forecasting and Social Change*, *82*, 42–51.

Catala, B., Savall, T., & Chaves-Avila, R. (2023). From entrepreneurial and innovation ecosystems to the social economy ecosystem. *Journal of Business Research*, *163*, 113932.

Chatzichristos, G., & Nagopoulos, N. (2021). Regional institutional arenas for social innovation: a mixed-methods research. *Journal of Social Entrepreneurship*, *12*(3), 315–337.

Chen, W. H., Chen, S., Lin, Y. C., Chen, C. L., Ng, W. K., Ding, Y., Shih, Y. S., & Chen, H. N. (2025). Achieving social innovation in the digital age: A case study of microbusiness. *International Journal of Innovation Studies*, *9*(1), 16-29.

Christopoulos, T. P., Verga Matos, P., & Borges, R. D. (2024). An ecosystem for social entrepreneurship and innovation: how the state integrates actors for developing impact investing in Portugal. *Journal of the Knowledge Economy*, *15*(2), 7968–7992.

Cloutier, J. (2003). Qu'est ce que l'innovation sociale? [s.l: s.n.]. see ET0314.

Dabars, W. B., & Dwyer, K. T. (2022). Toward institutionalization of responsible innovation in the contemporary research university: insights from case studies of Arizona State University. *Journal of Responsible Innovation*, *9*(1), 114–123.

de Saille, S. (2015). Innovating innovation policy: The emergence of 'Responsible Research and Innovation'. *Journal of Responsible Innovation*, *2*(2), 152–168. https://doi.org/10.1080/23299460.2015.1045280

Degbey, W. Y., Pelto, E., Öberg, C., & Carmeli, A. (2024). Customers driving a firm's responsible innovation response for grand challenges: A co-active issue-selling perspective. *Journal of Product Innovation Management*, *41*(2), 379–402.

Felt, U., & Sepehr, P. (2024). Infrastructuring citizenry in Smart City Vienna: investigating participatory smartification between policy and practice. *Journal of Responsible Innovation*, *11*(1), 2313303.

Fernández-Blanco, C. R., Górriz-Mifsud, E., Prokofieva, I., Muys, B., & Parra, C. (2022). Blazing the trail: Social innovation supporting wildfire-resilient territories in Catalonia (Spain). *Forest Policy and Economics*, *138*, 102719.

Fielke, S. J., Lacey, J., Jakku, E., Allison, J., Stitzlein, C., Ricketts, K., ... & Cooke, A. (2023). From a land 'down under': the potential role of responsible innovation as practice during the bottom-up development of mission arenas in Australia. *Journal of Responsible Innovation*, *10*(1), 2142393.

Foley, R. W., Sylvain, O., & Foster, S. (2022). Innovation and equality: an approach to constructing a community-governed network commons. *Journal of Responsible Innovation*, *9*(1), 49–73.

Forsberg, E. M., Berntsen, I. C., Brekke, A., Haugen, A. G., Stensgård, A. E., Strøm-Andersen, N., ... & Szulecka, J. (2024). Norwegian supply chain collaboration when it is urgent to reduce food waste: The relation between efforts for good outcomes and engaging in RRI process dimensions—*Journal of Responsible Innovation*, *11*(1), 2376781.

Groves, C., Henwood, K., Pidgeon, N., Cherry, C., Roberts, E., Shirani, F., & Thomas, G. (2023). Putting visions in their place: responsible research and innovation for energy system decarbonization. *Journal of Responsible Innovation*, *10*(1), 2149954.

Gustafsson, E., McKelvey, M., & Zaring, O. (2023). Exploring how the university ecosystem can mobilise resources for social innovation and entrepreneurship: knowledge-intensive entrepreneurial firms in Sweden. *Journal of Social Entrepreneurship*, 1–24.

Heltzel, A., Schuijer, J. W., Willems, W. L., Kupper, F., & Broerse, J. E. W. (2022). 'There is nothing nano-specific here': a reconstruction of the different understandings of responsiveness in responsible nanotechnology innovation. *Journal of Responsible Innovation*, *9*(2), 173–195.

Hoon, C. (2013). Meta-synthesis of qualitative case studies: An approach to theory building. *Organizational research methods*, *16*(4), 522–556.

Howaldt, J., Domanski, D., & Kaletka, C. (2016). Social Innovation: towards an innovation paradigm. *RAM. Mackenzie Management Journal*, *17*(6), 20–44.

Inglesant, P., Ten Holter, C., Jirotka, M., & Williams, R. (2021). Asleep at the wheel? Responsible Innovation in quantum computing. *Technology Analysis & Strategic Management*, *33*(11), 1364–1376.

Kaplan, L. R., Farooque, M., Sarewitz, D., & Tomblin, D. (2021). Designing participatory technology assessments: a reflexive method for advancing the public role in science policy decision-making. *Technological Forecasting and Social Change*, *171*, 120974.

Kassim, E. S., Zamzuri, N. H., Jalil, S. A., Mohamed Salleh, S., Mohamad, A., & Abdul Rahim, R. (2022). A social innovation model for sustainable development: A case study of a Malaysian entrepreneur cooperative (KOKULAC). *Administrative Sciences*, *12*(3), 103.

Khan, M. S. M., Harvey, C., Price, M., & Maclean, M. (2023). Philanthropy and socioeconomic development: The role of large indigenous voluntary organizations in bridging social divides in Pakistan. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *34*(6), 1335–1346.

Kripa, D., Luci, E., Gorica, K., & Kordha, E. (2021). New business education model for entrepreneurial HEIs: University of Tirana social innovation and internationalization. *Administrative Sciences*, *11*(4), 122.

Ledingham, K., Opesen, C., Hartley, S., & Neema, S. (2023). Situating the social sciences in responsible innovation in the global south: the case of gene drive mosquitoes. *Journal of Responsible Innovation*, *10*(1), 2264100.

Lehoux, P., Silva, H. P., Denis, J. L., Miller, F. A., Pozelli Sabio, R., & Mendell, M. (2021). Moving toward responsible value creation: Business model challenges faced by organizations producing responsible health innovations. *Journal of Product Innovation Management*, *38*(5), 548–573.

Lehoux, P., Silva, H. P., Denis, J. L., Morioka, S. N., Harfoush, N., & Sabio, R. P. (2024). What entrepreneurial skillsets support responsible value creation in health and social care? A mixed methods study. *Business Ethics, the Environment & Responsibility*, *33*(4), 807–827.

Li, C., & Bacete, G. (2022). Mapping the technology footprint in design for social innovation. *International Journal of Innovation Studies*, *6*(3), 216-227.

Li, F., Owen, R., & Shaw, G. (2023). Framings of innovation, responsibility, and responsible innovation in China: insights from a case study undertaken with Chinese businesses. *Journal of Responsible Innovation*, *10*(1), 2217594.

Maher, M., & Hazenberg, R. (2021). Floating down the river: Vietnamese community-led social innovation. *Social Enterprise Journal*, *17*(1), 1–19.

Mejlgaard, N., Bloch, C., & Madsen, E. B. (2018). Responsible research and innovation in Europe: A cross-country comparative analysis. *Science and Public Policy*. https://doi.org/10.1093/scipol/scy048

Mejlgaard, N., Davies, S. R., Dewandre, N., Lemmens, P., Mátyás, B., Monsees, J. E., ... & Griessler, E. (2019). Teaching responsible research and innovation: A phronetic perspective. *Science and Engineering Ethics*, *25*(2), 597–615. https://doi.org/10.1007/s11948-018-0029-1

Moerenhout, T., Vandenhoudt, H., Daems, W., Vigneron, L., Vandensande, T., & Teckno 2030 stakeholder group. (2024). Eight caring technology principles: development and implementation of a framework for responsible health technology innovation. *Journal of Responsible Innovation*, *11*(1), 2408815.

Moore, M., Riddell, D., & Vocisano, D. (2015). Scaling out, scaling up, scaling deep: Strategies of nonprofits in advancing systemic social innovation. *The Journal of Corporate Citizenship*, June, 67–84.

Morais-Da-Silva, R. L., Takahashi, A. R. W., & Segatto, A. P. (2016). Scaling up social innovation: a meta-synthesis. *RAM. Mackenzie Management Journal*, *17*(6), 134–163.

Morandeira-Arca, J., Etxezarreta-Etxarri, E., Azurza-Zubizarreta, O., & Izagirre-Olaizola, J. (2024). Social innovation for a new energy model, from theory to action: contributions from the social and solidarity economy in the Basque Country. *Innovation: The European Journal of Social Science Research*, *37*(1), 33-59.

Otten, R., Faughnan, M., Flattley, M., & Fleurinor, S. (2022). Integrating equity, diversity, and inclusion into social innovation education: a case study of critical service-learning. *Social Enterprise Journal*, *18*(1), 182–200.

Owen, R., Macnaghten, P., & Stilgoe, J. (2012). Responsible research and innovation: From science in society to science for society, with society. *Science and Public Policy*, *39*(6), 751–760. https://doi.org/10.1093/scipol/scs093

Paredes, L. H. L., & Vigiola, G. Q. (2024). Microspheres of self-governance: Platform communities in times of need in Bogotá, Colombia. *Cities*, *153*, 105311.

Patel, M., Weerawardhana, S., & Moreau, L. (2024). Jointly navigating through RRI in practice: lessons from technology design. *Journal of Responsible Innovation*, *11*(1), 2425091.

Petersen, I. H., & Kruss, G. (2021). Universities as change agents in resource-poor local settings: An empirically grounded typology of engagement models. *Technological Forecasting and Social Change*, *167*, 120693.

Pol, E., & Ville, S. (2009). Social innovation: Buzz word or enduring term?. *The Journal of socio-economics*, *38*(6), 878-885.

Prihadyanti, D., Aziz, S. A., & Sari, K. (2024). Diffusion of social innovation: The innovation provider's perspective. *Journal of the Knowledge Economy*, *15*(1), 4516–4570.

Sacchetti, S. (2023). Prosocial organizational capabilities in the work-integration social enterprise. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *34*(5), 1036-1049.

Sánchez Hernández, M. I., & Castilla-Polo, F. (2024). Exploring Responsible Research and Innovation in reputable agri-food cooperatives and the link to international orientation. An exploratory empirical case study in Spain. *Journal of Responsible Innovation*, *11*(1), 2322756.

Schuijer, J. W., Broerse, J., & Kupper, F. (2021). Juggling roles, experiencing dilemmas: The challenges of SSH scholars in public engagement. *NanoEthics*, *15*(2), 169-189.

Seo, B. K. (2022). Co-creation of knowledge in the urban planning context: The case of participatory planning for transitional social housing in Hong Kong. *Cities*, *122*, 103518.

Sheik, A., Rooyen, D. V., & Mazzei, M. (2022). *Social innovation in South Africa: building inclusive economies? Social Enterprise Journal, 19(1), 1–22*.

Silva, L. M. d., Bitencourt, C. C., Faccin, K., & Iakovleva, T. (2019). The Role of Stakeholders in the Context of Responsible Innovation: A Meta-Synthesis. *Sustainability*, *11*(6), 1766. https://doi.org/10.3390/su11061766

Slitine, R., Chabaud, D., & Richez-Battesti, N. (2024). Towards local sustainability: How intermediation fosters social innovation. *Technological Forecasting and Social Change*, *209*, 123790.

Starkbaum, J., Braun, R., Blok, V., Schroth, F., Häußermann, J. J., Colonnello, C., Popa, E., Wesselink, R., & Gerhardus, A. (2024). Responsible innovation across societal sectors: a practice perspective on Quadruple Helix collaboration. *Journal of Responsible Innovation*, *11*(1), 2414531.

Stilgoe, J., Owen, R., & Macnaghten, P. (2013). Developing a framework for responsible innovation. *Research Policy*, 42(9), 1568–1580. https://doi.org/10.1016/j.respol.2013.05.008

Taylor, J. B. (1970). Introducing Social Innovation. *The Journal of Applied Behavioral Science*, *6*(1), 69–77.

Temmerman, L., Veeckman, C., & Ballon, P. (2021). Collaborative governance platform for social innovation in Brussels. *Social Enterprise Journal*, *17*(2), 165–182.

Ten Holter, C., Inglesant, P., & Jirotka, M. (2023). Reading the road: challenges and opportunities on the path to responsible innovation in quantum computing. *Technology Analysis & Strategic Management*, *35*(7), 844-856.

Tuckerman, L., Roberts, J., & Whittam, G. (2023). A spectrum of open social innovation within social enterprise. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *34*(4), 799–812.

Veloudis, S., Ryan, M., Ketikidi, E., & Blok, V. (2025). Responsible innovation in startups: entrepreneurial perspectives and formalisation of social responsibility. *Journal of Responsible Innovation*, *12*(1), 2453251.

von Schnurbein, G., Potluka, O., & Mayer, A. (2023). Creating social innovation in urban development through collaborative processes. *Innovation: The European Journal of Social Science Research*, *36*(2), 316-332.

Wakunuma, K., Castro, F. D., Jiya, T., Inigo, E. A., Blok, V., & Bryce, V. (2021). Reconceptualising responsible research and innovation from a Global South perspective. *Journal of Responsible Innovation*, *8*(2), 267–291.

Westley, F. & Antadze, N. (2010). Making a Difference: Strategies for Scaling Social Innovation for Greater. Impact. *The Innovation Journal: The Public Sector Innovation Journal*, *15*(2), 2–19.

Whitelaw, S., Gibson, I., Wild, A., Hall, H., & Molloy, H. (2021). The Dumfries Arts Award Project: towards building a programme theory of innovation transfer across two social organisations. *Social Enterprise Journal*, *17*(2), 183–202.

Zhang, H., Gao, J., & Zhang, F. (2025). How to re-found RRI in a cosmopolitan world? A case study of BGI, the frontier genetic enterprise in China. *Journal of Responsible Innovation*, *12*(1), 2440961.

## Ethical Statement

**Conflict of Interest:** Nothing to declare. **Funding:** Nothing to declare. **Peer Review:** Double-blind.