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R: Document, report (excluding the periodic and final reports)
DEM: Demonstrator, pilot, prototype, plan designs
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Executive summary

For decades, technology transfer policies and intellectual property (IP) reforms have promised equitable access to innovation but have often fallen short, especially in building capacity in low- and middle-income countries (LMICs). With global health inequities widening, the climate crisis intensifying, and technology access gaps made even more visible during the COVID-19 pandemic, new approaches are urgently needed. Impact Licensing (IL) offers one such approach: a practical, contract-level tool that helps ensure IP and innovation serve societal needs, such as the Sustainable Development Goals (SDGs), while also preserving economic value for technology owners. The Impact Licensing Initiative (ILI) develops this approach into a structured framework, enabling technology owners to make underused innovations more accessible and socially impactful.

This White Paper is aimed at policymakers and other stakeholders of the IL ecosystem. Its objective is to provide a better understanding of current IL approaches, combined with insights from stakeholder consultations, to set out the requirements and possible policy directions needed to build tools, training, and a stronger IL ecosystem. It brings together evidence from a literature review on, amongst others, Socially Responsible Licensing (SRL) and other related concepts, as well as findings from a needs assessment that included four workshops (January–March 2025) and a stakeholder survey (April–June 2025).[3]

Both the workshops and the survey engaged a diverse mix of stakeholders from industry, academia, policy, and civil society—identified through project partner networks, the project's Strategic Advisory Board (SAB), and targeted outreach. The aim was to capture feedback on the current understanding of the IL ecosystem, identify stakeholder needs, refine model specifications, and identify priorities for moving forward.

This White Paper presents the results of these consultations and provides an evidence base for refining the IL ecosystem model and shaping future policy recommendations.

The key findings point to three central priorities: (i) the critical importance of paying careful attention to the design, piloting and onboarding of well-resourced and capable clearing houses given their role as active enablers to scale impact licensing, (ii) the close integration of blended finance and impact investment as well as measurement into contractual impact licensing frameworks, and (iii) the importance of capacity- and awareness-building to expand adoption among technology users and holders. Together, these insights highlight the potential of IL to move beyond fragmented technology transfer efforts and toward a coherent, scalable, and impact-oriented licensing ecosystem.

[3] We would like to thank all external reviewers for providing value feedback for preparing the White Paper.

List of abbreviations

ASEAN – Association of Southeast Asian Nations

CTCN – Climate Technology Centre and Network

DNDi – Drugs for Neglected Diseases initiative

EC – European Commission

EU – European Union

EVPA – European Venture Philanthropy Association (now Impact Europe)

GDPR – General Data Protection Regulation

GIE – Global Innovation Exchange

GIIN – Global Impact Investing Network

GSG – Global Steering Group for Impact Investment

GATT – General Agreement on Tariffs and Trade

IMM – Impact Measurement and Management

IoT – Internet of Things

IP – Intellectual Property

ILI – Impact Licensing Initiative

IL – Impact Licensing

IRIS+ – Impact Reporting and Investment Standards+

LMICs – Low- and Middle-Income Countries

MICs – Middle-Income Countries

RDI – Research, Development, and Innovation

SDGs – Sustainable Development Goals

SEFORÏS – Social Enterprises as Force for Inclusive and Innovative Societies

SMEs – Small and Medium-sized Enterprises

SRL – Socially Responsible Licensing

TFM – Technology Facilitation Mechanism

TRIPS – Trade-Related Aspects of Intellectual Property Rights

TT – Technology Transfer

TTOs – Technology Transfer Offices

UN – United Nations

UNCTAD – United Nations Conference on Trade and Development

UNIDO – United Nations Industrial Development Organization

WIPO – World Intellectual Property Organization

WTO – World Trade Organization

1 Introduction

The global effort to link technology transfer with development began in the post–World War II era, when programs such as the United Nations Technical Assistance Program (1949) and the Colombo Plan (1950) highlighted knowledge-sharing as essential for economic recovery and growth.

By the 1960s, decolonisation and the emergence of the "Global South" led to demands for a more equitable international economic order. The establishment of the United Nations Conference on Trade and Development (UNCTAD) in 1964 provided a permanent platform for developing countries to push for fairer terms in trade, finance, investment, and technology transfer [1]. Parallel developments in global trade governance—from the General Agreement on Tariffs and Trade (GATT) to the World Trade Organization (WTO) in 1995—further codified intellectual property through the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) [2]. While TRIPS included provisions such as Article 66.2, obligating developed countries to promote technology transfer to least-developed countries, subsequent analyses show these commitments were often weakly implemented and lacked enforcement mechanisms [3].

Alongside these legal frameworks, institutions such as United Nations Industrial Development Organization (UNIDO) and World Association of Industrial and Technological Research Organizations (WAITRO) promoted industrial capacity-building and technology collaboration, while platforms like WIPO GREEN, the Global Innovation Exchange (GIE), and the Technology Facilitation Mechanism (TFM) under the 2030 Agenda fostered innovation partnerships for sustainable development. Yet, despite these initiatives, the gap between IP governance and equitable technology diffusion persisted—laying the groundwork for approaches like Impact Licensing (IL) that aim to bridge global innovation capabilities with societal needs.

Beyond legal and institutional frameworks, effective data stewardship is increasingly central to equitable technology use. By ensuring that data is managed, shared, and re-used responsibly, it fosters trust and enables collaboration across actors; in the IL context, this is operationalised through data collaboratives that support monitoring, learning, and accountability. In Europe, general safeguards such as the General Data Protection Regulation (GDPR) and emerging obligations under the Data Act (applicable from September 2025) shape access and reuse.[4]

IL was proposed in 2020 as a European approach by Vandermeulen et al. [4]. It aims to balance the economic value of technology with its potential social impact, making it a useful tool for addressing unmet social or environmental needs. It can be defined as [4]:

Impact licensing is a time-bounded permission granted by a technology owner to bring at preferred rates or reduced price an intellectual property, a technology, a product or a service to a pre-defined (social) market for societal value creation.

Example of Impact Licensing in practice: IKIC Impact Ventures – Cooling for Health and Food Security
IKIC Impact Ventures, a Belgium-based start-up incubated by the Impact Licensing Studio, a venture builder, illustrates how IL can bridge technology and societal needs. By securing an impact license for a proprietary thermostatic battery technology, IKIC adapted it to develop sustainable cooling solutions for vaccine distribution and perishable food transport in low-resource settings. The license embedded clear societal objectives, ensuring the technology reached underserved markets while maintaining commercial viability. Building on this, IKIC introduced a "cooling-as-a-service" model that combines passive cooling with IoT-

[4] See https://digital-strategy.ec.europa.eu/en/factpages/data-act-explained

enabled monitoring, lowering adoption barriers in low- and middle-income countries. This case highlights how Impact Licensing can make critical innovations both accessible and scalable. Website: https://ikic.cool/

IL is rooted in **six key principles**: additionality, intentionality, measurability, total return on assets (TROA), completeness, and participation.

Additionality in impact licensing agreements clearly defines the additional market segment in terms of geography, beneficiaries, and other relevant factors, ensuring it is separate from and does not endanger the markets that are reserved for the technology owner. To promote inclusive access and adoption, the agreement includes measures to facilitate and accelerate market entry for the target societal market. Additionally, the agreement ensures the economic protection of the traditional market and product, safeguarding the stability and sustainability of existing markets while enabling the successful introduction of the technology.

Intentionality refers to the deliberate aim to address a social challenge and not merely the capacity to do so. The impact licensing agreement is granted to address a clearly defined societal and/or environmental need, with the explicit goal of achieving measurable outcomes. It ensures that the technology is produced and used in alignment with sustainable practices and ethical standards. The licensee is obligated to use the technology to create societal and environmental value within the designated territory. The agreement incorporates provisions to address unmet needs, sustainability (environmental, social, and economic), and adherence to global ethical standards, while preventing intentional delays or withholding of the technology's development and use.

Measurability defines clear indicators to measure the technology's contribution to achieving the intended outcomes, while ensuring compliance with ethical and sustainable standards. It includes procedures for continuous monitoring of the technology's effectiveness in reaching its goals and impact. The agreement guarantees third-party verification and transparency regarding the technology's intended use.

Total Return On Assets (=TROA) and (shared) value of IP is enhanced for the technology holder by driving broader utilization, increasing demand, and facilitating entry into new markets. Licensing the technology across diverse sectors fosters open and frugal innovation, improving the existing IP and generating new intellectual property. This approach aligns with ESG regulatory trends, attracting impact investors and securing public incentives. Additionally, it boosts brand loyalty and strengthens intrinsic motivation and job satisfaction among employees and stakeholders.

Completeness ensures an all-encompassing approach to technology transfer by providing the licensee with comprehensive access to all relevant information and resources. This includes technical, market, and operational data, as well as ongoing support for innovation and capacity-building. The agreement guarantees sufficient exclusivity and duration to allow for long-term adoption and impact. It also facilitates continuous access to improvements and adaptations, ensuring the technology's evolution aligns with the intended societal and environmental goals.

Participation involves the clear definition of the roles, responsibilities, and motivations of all key stakeholders involved in the technology transfer process. It establishes governance principles that promote participation, collaboration and ensure alignment with the shared objectives and mission. Independent mechanisms are included to monitor compliance and address potential conflicts of interest. Additionally, the agreement provides provisions for flexibility, mediation, and risk mitigation, ensuring that unforeseen challenges in the societal market are managed effectively to optimize social and environmental impact.

This White Paper positions IL as an operational bridge between policy intent (e.g. TRIPS, UNCTAD) and practice (e.g. Socially Responsible Licensing, open IP sharing models), with attention to data governance, embedding impact finance and measurement directly into licensing agreements.[5] While the term 'Impact Licensing' is not yet widely used in the academic literature, it can be understood as a framework that enables approaches such as SRL to be implemented effectively. Within this context, the European Union (EU) has assumed a strategic role in promoting technology transfer and strengthening IP capacity in developing countries, aligning these efforts with broader development goals and sustainable innovation agendas through the exploration of inclusive licensing practices. There is also a growing policy interest in coupling practical toolkits with networks of intermediaries to accelerate impact licensing and help guarantee access to technology and data in crisis contexts.

Building on lessons from Socially Responsible Licensing (1.1.1) taking into account the history of technology transfer (1.1.2) and impact finance and measurement frameworks (1.1.3) this White Paper presents results from a need assessment for an IL ecosystem. For that, this White Paper draws on two complementary methods to capture stakeholder perspectives. First, four online focus-group workshops were conducted with stakeholders across three thematic areas (Data, Impact Investment, Health), followed by a validation workshop to refine and verify findings (see 5.2 for method details). These workshops provided in-depth qualitative insights into needs, challenges, and expectations. Second, a follow-up online survey was distributed to a broader set of stakeholders to validate and extend these insights (see 5.3 for details). The survey was distributed to respondents from the three stakeholder groups that were perceived to be critical: technology holders, clearing houses, and technology users. Together, these methods provided a robust basis for triangulating stakeholder views and refining the Impact Licensing ecosystem model.

In the following subsections, we provide a summary of the relevant literature, the ecosystem model and then present results from stakeholders' consultations for the three main stakeholder groups: clearing houses (intermediaries that enable and de-risk licensing), technology holders (owners of IP and innovations), and technology users (actors applying licensed technologies in practice).

The remainder of this White Paper is structured as follows: Section 1 reviews the relevant literature and introduces the Impact Licensing ecosystem model; Section 2 presents findings from stakeholder consultations, including workshops and survey insights across the three stakeholder groups; and Section 3 discusses the implications for policy and practice, offering recommendations and next steps.

[5] This Needs Assessment White Paper is complemented by *"White Paper: State of the Art on Impact Licensing - Co-designing the Impact Licensing Ecosystem"* available at https://impactlicensing.eu/resources.

1.1 Insights from the literature

In this subsection, we present findings from the literature review, beginning with Socially Responsible Licensing (SRL)—a concept that originated in the United States (US) and is relatively well documented in academic and policy literature. We then turn to the broader history of technology transfer (1.1.2) and the role of impact investment and measurement (1.1.3). SRL is highlighted here not only as a precursor but also as one of the foundational pillars of IL.

1.1.1 Literature review on Socially Responsible Licensing and its conceptual linkages to Impact Licensing

SRL has been proposed in the US as one approach for aligning IP management with public interest objectives. By introducing mechanisms such as non-exclusive licensing, tiered pricing, global access clauses, and participatory governance structures, SRL promises to provide practical tools for ensuring that publicly funded research and socially relevant innovations reach underserved populations. For this White Paper, SRL offers a foundation for understanding how licensing practices can be structured to balance innovation incentives with societal needs, making it a critical starting point for studying models that seek to combine commercial viability with equitable access.

One of the early definitions of SRL comes from Berkeley's IP initiative called Berkley's SRL Program, conceived by Eva Harris, a professor at Berkeley's School of Public Health [5]. Mimura (2007) describes SRL objectives as [5]:

- Ensuring that healthcare services and technologies are accessible in developing nations,
- Enhancing the societal impact and public value of technologies emerging from Berkeley,
- Sharing revenues or other advantages with collaborators who work alongside Berkeley researchers,
- Properly crediting providers of resources, materials, or collaborative input, and
- Encouraging further investments from external sources to support these aims.

Knowledge gaps in SRL: Consensus seems to exist that SRL involves structuring licensing agreements for social and ecological needs, and different fields, such as biotechnology, public health, and sustainable development, apply SRL with varying interpretations and principles. While SRL has diffused several knowledge gaps still appear to exist, particularly in relation to key concepts and guiding principles. These gaps highlight areas where further research and clarity seem to be needed to strengthen SRL as a framework for achieving broader social and environmental goals.

Below we summarize the articles that were identified through a literature review conducted in 2024 highlighting particularly three exemplar papers that effectively illustrate the concepts underlying SRL. The methodology of the review is presented in the Annex (see 5.1). Table 1 provides the summary of key findings from the articles.

Table 1 Key takeaways from select SRL articles

Author, Year	Key takeaways
Sandrik et al., 2024 [6]	Describes the NIH-Moderna collaboration's efforts to ensure equitable access through SRL, tiered or non-profit pricing, and joint governance. Suggests that balancing collaboration and decision-making on IP and public health outcomes remains a challenge.

McMahon et al., 2024 [7]	Stresses the need for governments, funders, and universities to ensure IP licensing policies promote equitable healthcare access, particularly in LMICs.
Shahzad et al., 2023 [8]	Describes Global Access Licensing, a flexible framework for public institutions to ensure equitable licensing of health technologies for developing countries, based on practices from leading universities.
Rosenberg et al., 2023 [9]	Highlights innovative public–private partnerships for rare diseases, which indirectly illustrate SRL principles applied beyond neglected diseases.
Joffe et al., 2023 [10]	Highlights the role of universities in ensuring global access to affordable medicines, through SRL, such as limiting exclusivity to high-income countries and imposing price caps in LMICs.
Gallini et al., 2023 [11]	Advocates for creative licensing mechanisms that align industry partnerships with global access principles, emphasizing collaborations that support vulnerable populations.
Vimalnath et al., 2022 [12]	Suggests humanitarian licensing of medical technologies as a model for universities to promote sustainability transitions, balancing exclusivity and openness in IP sharing.
Stevens et al., 2022 [13]	Praises universities for enacting pandemic-specific licensing principles to maximize global availability and minimize delays in translating public-sector research, often waiving royalties.
Shadlen et al., 2022 [14]	Discusses the global expansion of pharmaceutical patenting post-TRIPS and suggests COVID-19 licensing practices as a model for quicker, equitable drug production and access.
Ramachandran et al., 2022 [15]	Highlights the failure of the University of California Health System to uphold global access licensing principles in its licensing of enzalutamide (Xtandi), emphasizing the need for governmental oversight and transparency in university licensing practices.
McMahon et al., 2022 [16]	Advocates for socially responsible corporate behaviour in patent licensing, particularly for health technologies, driven by shareholder activism and a combination of voluntary, mandatory, internal, and external strategies.
Lemmens et al., 2022 [17]	Calls for government and industry action to improve medicine access, promoting models like SRL and open science to foster equitable R&D processes.
Krishnamurthy et al., 2022 [18]	In this systematic review on drug repurposing, authors describe Merck's collaboration with DNDi, using SRL for developing cost-effective treatments for neglected tropical diseases, with shared IP rights.
Keestra et al., 2022 [19]	Criticizes UK universities for not updating their patenting and licensing strategies during COVID-19 and calls for funders to mandate transparency and access clauses in research funding.
Carcelén et al., 2022 [20]	Describes SRL practices in public research organisations to balance innovation, exclusivity, and societal impact, noting variability across fields like biomedicine and engineering.
Verweij et al., 2021 [21]	Suggests anti-shelving clauses and enhanced academic partnerships to ensure SRL practices and continuous university involvement in technology dissemination.

Saksupapchon et al., 2021 [22]	Highlights SRL Programs, including clauses reserving rights for public or non-profit organisations to use IP for education and research.
Feeney et al., 2021 [23]	Critiques ethical licensing for gene-editing technologies like CRISPR due to its lack of democratic legitimacy and suggests government-driven regulation with more transparency.
Contreras et al., 2021 [24]	Proposes SRL structures, such as non-exclusive licensing and university march-in rights, to expand access to essential medicines, inspired by successful cases like Yale's HIV drug.
Marr et al., 2020 [25]	Explores the evolution of university technology transfer offices post-Bayh-Dole Act, enabling faculty to transfer property rights for external licensing, but debates their effectiveness in commercialization productivity.
Jahn et al., 2020 [26]	Describes strategies promoting access to medicines through public health-sensitive technology transfers, such as non-exclusive licenses and affordability obligations. Suggests that these approaches improve equitable access to essential medicines.
Heaton et al., 2020 [27]	Describes UC Berkeley's Socially Responsible Licensing Program, which optimizes public benefit through innovative licensing models, including royalty-free terms, nonassertion of IP, and tiered pricing. Suggests that combining traditional performance metrics with social impact measures enhances accessibility in developing countries.
Bubela et al., 2020 [28]	Suggests that rapid public disclosure of methods, data, and analyses creates prior art, preventing others from patenting around an initiative's innovations. Describes how governance structures with standard agreements enable SRL strategies for data and reagents.
Guebert et al., 2014 [29]	Argues for going beyond neglected diseases in SRL by implementing models that ensure affordability and sustainable global access to medicines.
Mimura et al., 2007 [5]	Describes the origins of UC Berkeley's SRL program, highlighting tiered pricing and royalty-free licensing to maximize social benefit while preserving innovation incentives.

With the large majority of publications published in or after 2020, this summary clearly shows that the SRL concept is comparably young, with two exceptions, the seminar work by Mimura et al. (2007) originally introducing the SRL program at UC Berkeley and Publication by Guebert et al. (2014) making a case for SRL being a feasible approach for a range of applications and sectors.

Highlights from exemplar studies on SRL are presented below. These three cases were chosen as exemplars because they represent diverse institutional approaches (university-led, industry–NGO partnerships, and global health initiatives) and demonstrate how SRL principles could be operationalized in practice to balance innovation incentives with equitable access.

- Mimura et al. (2007): Technology Licensing for the Benefit of the Developing World: UC Berkeley's Socially Responsible Licensing Program (SRLP)

This pioneering paper explores the University of California, Berkeley's developed approach to integrating social responsibility into its IP management through its SRLP initiated in 2003. The program aims to balance

the need for revenue generation with positive social impact by ensuring that innovations are made accessible for societal benefit. The paper uses a qualitative analysis of various IP licenses, sponsored research agreements, and collaborative research agreements to evaluate how SRLP has been implemented. The findings suggest that the program aligns with the belief that the primary mission of university technology transfer should be to serve societal well-being by sharing knowledge and innovations, thereby contributing to both economic and social development.

- Guebert et al. (2014): Implementing Socially Responsible Licensing for Global Health: Beyond Neglected Diseases

Guebert's paper focuses on the need for SRL to enhance global health innovations' accessibility, extending beyond neglected diseases. It highlights strategies for universities to align their licensing practices with their ethical responsibilities, especially when they receive public funding. The paper uses policy commentary to analyse existing literature and practices on technology transfer and licensing by providing examples from the University of British Columbia and UC Berkeley. The findings suggest that although universities often lead in global health innovation, they typically lack licensing policies that ensure global access. Guebert advocates for the creation of new metrics that measure the social, cultural, and institutional value of research outputs, aiming to create a more equitable approach to global health licensing.

- Rosenberg et al. (2022): Development of Medicines for Rare Diseases and Inborn Errors of Metabolism: Toward Novel Public–Private Partnerships

Rosenberg's paper addresses the challenges of developing medicines for rare diseases, focusing on the role of public-private partnerships (PPPs) in overcoming barriers in the development process. It highlights the importance of integrating academic contributions throughout medicine development, proposing a framework for socially responsible PPPs that emphasizes data-sharing, socially responsible pricing, and rapid patient access. The narrative review provides evidence for why SRL is crucial, particularly in addressing high medicine costs and limited access, even for successfully developed therapies. The proposed framework aims to balance the risks and rewards of private investment with sustainable public health outcomes, particularly in overcoming challenges like the "valley of death" in the translational stage.

Synthesis: From the SRL literature review, we explored the concepts most relevant to equitable access and public interest innovation. The health sector emerged as the most prominent area of application, with overlapping concepts including public-private partnerships, knowledge transfer, drug repurposing, and global access licensing. Key themes include the importance of equitable access to medicines and technologies, with universities, public institutions, and private entities adopting practices such as non-exclusive licensing, tiered pricing, and global access clauses.

Innovative frameworks such as UC Berkeley's Socially Responsible Licensing Program and Merck's partnership with the Drugs for Neglected Diseases Initiative (DNDi) demonstrate how access provisions can be written into licensing contracts to balance exclusivity with public benefit. However, the literature also shows that while SRL provides effective tools for drafting access clauses, it does not fully address broader systemic issues such as sustainable funding mechanisms, the exclusion of many middle-income countries (MICs) from licensing benefits, or incentives for technology holders to participate at scale.

Overall, SRL establishes the ethical and operational foundations for equitable licensing but leaves important gaps in financing, measurement, and uptake. To understand how these gaps connect to historical challenges

in knowledge transfer and development policy, we now turn to the broader history of technology transfer in the following sub-section.

1.1.2 Technology transfer

Technology transfer (TT) provides the institutional and policy framework within which any licensing solution—including IL—must operate. Its effectiveness shapes whether IP, knowledge, and technical know-how can be absorbed, adapted, and scaled by recipient countries and organisations. Furthermore, technology transfer is central to building industrial capabilities in developing economies, emphasizing that without the capacity to absorb and adapt knowledge, access alone does not lead to development [30]. Similarly, Maskus (2000) [31] highlighted how international IP regimes, while aiming to stimulate innovation, often failed to create meaningful pathways for knowledge diffusion or local technological upgrading in low- and middle-income countries. Together, these works point to a persistent gap between the promise of TT and its practical outcomes, a gap that remains visible in evaluations of the TRIPS Agreement, UNCTAD reports, and WTO discussions on innovation and development [1] [2].

Understanding this gap requires first clarifying what we mean by "technology." The literature generally converges on the idea that technology has both a physical dimension—products, equipment, blueprints, processes—and an informational dimension covering know-how in production, quality control, and organisational routines. This dual nature means technology is not only embedded in artifacts but also in the tacit skills, problem-solving capabilities, and cumulative learning processes within firms and institutions. As Wahab et al. (2012) [32] note, technology encompasses both "the hardware of tools, machines, and techniques" and "the software of knowledge, experience, and organisational methods" that together enable production and innovation.

Technology transfer, in turn, is more than the sale of equipment or the licensing of patents; it is, as defined by Wahab et al. (2012) [32], "the process by which knowledge, technologies, or capabilities developed in one place, organisation, or context are deliberately moved to another, where they are adapted and applied for local use." This process is rarely linear or automatic. Studies since the 1980s have emphasized that successful technology transfer requires not only physical access but also the ability to learn, internalize, and eventually improve upon the technology. It often involves long-term partnerships, training, and institutional support to ensure that knowledge moves alongside artifacts and that recipients gain the capacity to innovate rather than merely replicate.

Because much technological knowledge is tacit and context-specific, its transfer cannot be achieved by documents or blueprints alone; it requires absorptive capacity, organisational change, and enabling policies in the recipient setting. This recognition has shifted thinking from viewing technology transfer as a one-off single-directional transaction toward seeing it as a cumulative and iterative learning process shaped by incentives, institutions, and governance arrangements.

This history matters because it defines the feasible space for any licensing model. If technology transfer commitments have often failed to deliver because they ignored capability-building, financing, or the incentives of technology holders, then new approaches like Impact Licensing must explicitly account for these factors. The next part therefore examines the structural barriers that have historically limited technology transfer and continue to shape how licensing models should be designed so they can facilitate social impact.

The global architecture for technology transfer has evolved through successive waves of policy ambition and institutional experimentation. Early efforts began with the UN Technical Assistance Program (1949) and the

establishment of UNCTAD (1964) as a platform for linking trade, technology, and development (UNCTAD, 1985). The Draft Code of Conduct on Transfer of Technology (1985) marked the first attempt to codify principles for equitable technology flows, but it lacked binding enforcement. Trade negotiations under the GATT Tokyo and Uruguay Rounds resulted in the creating of the WTO and the TRIPS Agreement (1994/1995), which introduced minimum IP standards while promising technology transfer to least-developed countries—a promise later reaffirmed in the Doha Declaration (2001) but unevenly realized in practice.

Alongside these frameworks, several operational mechanisms emerged: the UN Technology Bank (2018–) supports least-developed countries in accessing knowledge resources; the Climate Technology Centre and Network (CTCN) facilitates technology transfer for climate adaptation and mitigation; UNIDO and WAITRO coordinate industrial and applied research networks; WIPO GREEN connects green technology providers with users; and regional or donor-led initiatives such as EU-funded projects, the Global Gateway, IP Helpdesks, and regional IP organisations like ASEAN promote collaborative innovation and capacity-building. Together, these mechanisms show a long trajectory of aspirations to bridge technological divides, even as practical outcomes have often lagged behind policy rhetoric. Over the years, academic and policy debates led to discussions on "innovation justice" to align IP governance with human development indicators.

Decades of evaluations of technology transfer agreements, from UNCTAD reports to post-TRIPS analyses, point to a few systemic hurdles that repeatedly undermine the practical impact of technology transfer:

- limited absorptive capacity in recipient countries—shortages of skills, infrastructure, and institutional support—often prevents effective uptake and adaptation of technologies.
- power asymmetries between technology holders (typically in high-income countries) and users (often in LMICs) shape negotiations, with licensing terms reflecting unequal bargaining positions rather than developmental needs.
- market and commercial risks discourage firms from offering access on affordable or concessional terms when demand or profitability is uncertain.
- policy and regulatory incoherence across trade, IP, and development agendas creates fragmented governance environments that delay or dilute implementation.
- resistance from technology holders—whether due to IP concerns, competitive advantage, or reputational risks—limits participation in voluntary or socially oriented licensing initiatives.

IL seeks to address these hurdles: the history of technology transfer (1.1.2) reveals how these barriers emerged; the literature on socially responsible licensing (1.1.1) shows partial contractual solutions; and the role of impact finance and measurement (1.1.3) introduces the incentives and accountability mechanisms needed to overcome them at scale. Because these hurdles are partly financial, IL borrows from the impact-investment concept to make access-oriented licensing investable and auditable.

1.1.3 Impact investment

The roots of impact investing—and by extension, IL—lie in the broader evolution from social entrepreneurship to financing models that align financial returns with measurable social and environmental outcomes. As early as the 2000s, Dees (2018), in their work "The Meaning of Social Entrepreneurship" [33] defined social entrepreneurs as "change agents in the social sector" who combine mission-driven orientation with pragmatic business methods to deliver sustainable and systemic improvements for underserved populations. Unlike traditional philanthropy, which often relied on grants and donations, social entrepreneurship introduced the idea that market-based mechanisms could be harnessed to address

development challenges, thereby blurring the boundaries between public, private, and non-profit sectors [34].

Throughout the 2010s, the European Union began formally recognizing this hybrid model through initiatives such as the Social Business Initiative and SEFORÏS [35], which documented the role of social enterprises in institutional change, inclusive innovation, and the diffusion of socially oriented business models. These efforts highlighted a growing consensus: systemic social challenges—from healthcare access to climate adaptation—required financing approaches that went beyond traditional corporate social responsibility or one-off donor funding.

It was in this context that impact investing emerged as a distinct movement, offering capital explicitly designed to achieve both financial returns and measurable social or environmental benefits. Popularized at the 2007 Rockefeller Foundation Bellagio Summit and later defined by the Global Impact Investing Network [36], impact investing refers to "investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return." This marked a conceptual shift from merely "doing no harm" towards proactively embedding intentionality, measurability, and accountability into financing decisions.

Subsequent frameworks have strengthened this orientation. The Impact Management Project introduced five dimensions of impact—what, who, how much, contribution, and risk—while tools such as IRIS+ standardized reporting metrics for social and environmental outcomes [36]. In parallel, European actors like Impact Europe (formerly EVPA) emphasized additionality (ensuring investments achieve outcomes beyond business-as-usual scenarios), intentionality (a deliberate focus on positive impact), and risk tolerance (supporting early-stage or underserved markets) as foundations of financing social innovation [37].

Together, these developments formalized what is now known as Impact Measurement and Management, integrating accountability for social and environmental results into the core of investment practice. For IL, this evolution matters because it provides both the conceptual and operational basis for embedding measurable impact directly into licensing contracts. By linking capital allocation, contractual design, and developmental objectives, impact investing frameworks offer the tools to overcome two recurring technology transfer barriers: the lack of sustainable financing mechanisms and the absence of standardised metrics for assessing long-term social value.

Building on this, three principles drawn from impact investing appear to be particularly important for licensing contracts. *Intentionality* requires that objectives and causal pathways for social or environmental outcomes be clearly defined upfront, ensuring alignment between the technology, its targeted markets, and inclusion rules [38]. *Additionality* demands that interventions create value that would not occur otherwise, operationalized through clauses on access thresholds, price or volume commitments, or crisis-triggered provisions for rapid deployment [39]. *Measurability* calls for the use of credible, standardized metrics and independent verification, embedding IRIS+-aligned indicators, third-party audits, and public reporting cadences directly into the licensing terms [36].

In the IL framework, these principles inform not only contract design—for example, by linking impact conditions, KPIs, and monitoring obligations to access provisions—but also the financing architecture that makes such contracts investable. Instruments such as blended finance facilities, outcome-linked royalties or milestones, and portfolio-level risk-sharing mechanisms housed in "clearing houses" allow licensees and investors to share both financial risk and impact accountability.

While standardisation and data-sharing remain uneven across sectors, IL proposes common templates and governance processes to reduce transaction costs and enable scalability. Together, these elements connect mission-driven licensing clauses with results-based financing and transparent measurement, ensuring that impact objectives are embedded rather than assumed in technology transfer agreements.

Responding to calls from the Stanford Social Innovation Review to avoid "scaling without system change" and reinforced by EU policy shifts such as Horizon Europe's mission-driven Research & Innovation agenda, IL presents a unified model for ethical, inclusive, and measurable technology dissemination. In the next section, we explore the IL ecosystem model in detail, describing its key components, stakeholders, and operational logic.

1.2 The Impact Licensing Ecosystem Model

The IL Ecosystem Model is designed mainly by the *Impact Licensing Initiative* to bridge the gap between purely profit-driven licensing models and fully open or waiver-based licensing approaches by establishing a structured, hybrid framework that balances economic and societal value creation. It aims to facilitate the responsible and equitable distribution of technology for societal and environmental benefits. IL builds on five foundational pillars: (i) development aid and trade, (ii) impact investment and social entrepreneurship, (iii) socially responsible licensing (SRL), (iv) global health, and (v) open and democratic innovation. IL is designed to address five systemic hurdles—limited absorptive capacity, power asymmetries, market risks, policy incoherence, and resistance from technology holders [40].

This model integrates state-of-the-art IL practices across Europe to facilitate technology adoption in health, agrifood, and green energy sectors, particularly in under-resourced regions. The model introduces two key support structures (See Figure 1), **Clearing House** and **Data Collaborative** that facilitate the link between the technology holders and users:

- A **Clearing House** acts as an intermediary between technology holders and licensees, negotiating agreements, managing IP and trade secrets, identifying potential users, and monitoring societal impact.
- A **Data Collaborative** establishes an open partnership for data governance, ensuring responsible data sharing, performance monitoring, and compliance with GDPR regulations to optimize the social and economic value of licensed technologies. A Data Collaborative supports monitoring, aggregation, and exploitation of research, social, and economic data, further enhancing transparency and accountability in the licensing process. Public authorities play a role in defining emergency provisions, ensuring that critical technologies remain accessible in crisis situations.

By embedding principles of intentionality, measurability, and additionality, the ecosystem model ensures that impact-driven licensing is strategic, transparent, and sustainable. Additionally, it provides incentives—both economic (e.g., fair royalties, asset valuation, open innovation opportunities) and non-economic (e.g., enhanced reputational positioning, societal impact at scale)—to motivate technology holders to engage in IL. The model also integrates a structured impact measurement framework, leveraging the United Nations Sustainable Development Goals (UN SDGs) to track and assess the real-world benefits of licensed technologies.

The IL ecosystem framework (see Figure 1) connects technology holders (such as universities and companies) with technology users who seek to apply innovations for impact-driven purposes. At its core, the model

operates through an *Impact Licensing Agreement*, which drafts elements including impact domains, eligibility and exploitation clauses, boundary conditions, and economic safeguards.

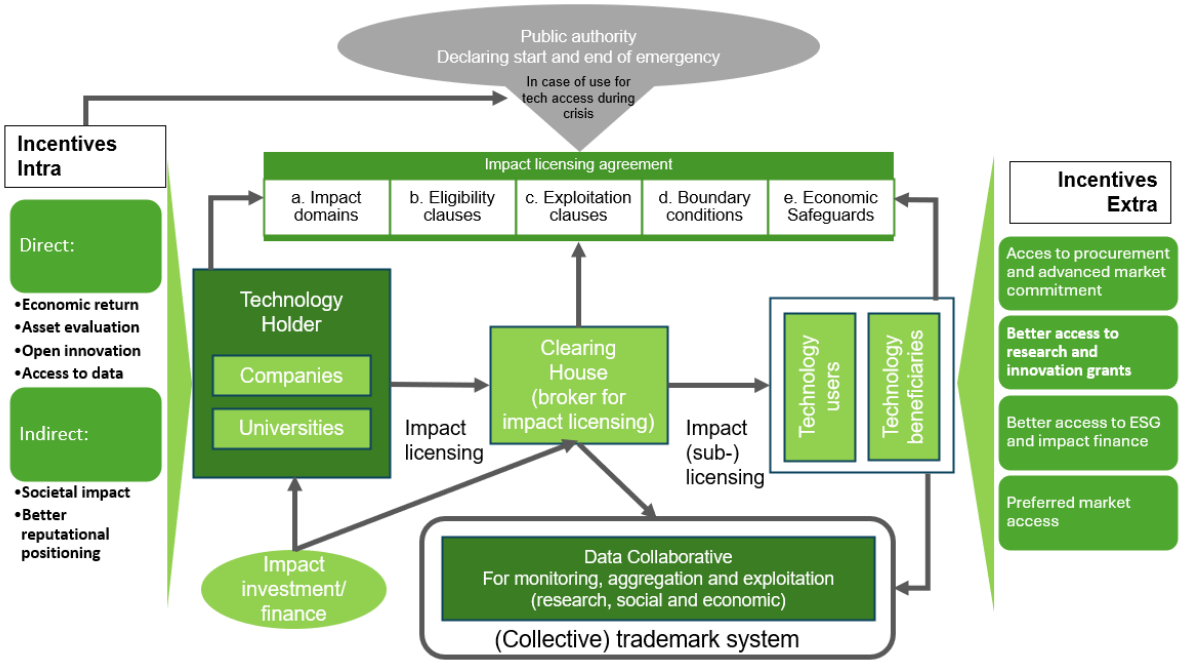

Figure 1 Impact Licensing Ecosystem Model and its incentive Structure (Based on Impact Licensing Initiative) [6] *[41]*

By leveraging this structured approach, technology holders benefit from incentives such as better access to procurement opportunities, research grants, impact finance, and preferred market access. This model aligns with broader sustainability goals by enabling ethical and inclusive access to innovations.

The Technology Holder, Clearing House, and Technology Users form a dynamic ecosystem to facilitate IL. The Technology Holder provides innovation, the Clearing House ensures fair and effective distribution, and the Technology Users apply the technology for real-world impact. In the following subsections, we provide a detailed description of these three groups.

1.2.1 Ecosystem group 1: Technology Holder (Impact Licensor)

The Technology Holder is the entity or individual that owns the intellectual property (IP) of a technology. This could be a university, research institution, startup, corporate R&D department, or independent innovator. Their primary role in IL is to make their technology available under specific conditions that align with social and environmental impact goals.

Key responsibilities:

- Developing and protecting the IP of the technology.
- Entering into an IL Agreement with the clearing house and licensees.

[6] Since the revised ecosystem model was developed with input from the stakeholders it has evolved further. For the latest version, please see the *"White Paper: State of the Art on Impact Licensing - Co-designing the Impact Licensing Ecosystem"* available at https://impactlicensing.eu/resources

- Co-defining impact domains and measurable indicators based on UN SDG goals.
- Monitoring compliance and ensuring that technology is not misused or underutilized.

Example: A technology holder has developed an innovative cooling solution for storing and transporting temperature-sensitive goods. Instead of limiting its use to commercial markets, the holder licenses it under an IL model that ensures affordable access for healthcare providers and food distributors in low-resource settings. The holder then partners with a Clearing House to structure agreements and monitor that the technology is deployed to maximize both societal impact and commercial viability.

1.2.2 Ecosystem group 2: Clearing House

The Clearing House acts as an intermediary organisation that facilitates the IL process by bridging the gap between technology holders and potential technology users. It ensures fair negotiations, transparent management, and execution of agreements while protecting the integrity of the technology and its impact objectives.

Key responsibilities:

- Negotiating and brokering agreements between technology holders and licensees.
- Managing confidential information (e.g., trade secrets, IP details) securely.

Example: An independent global health organisation serves as a Clearing House to negotiate IL agreements for life-saving medical devices. It ensures that companies producing these devices distribute them in developing countries under fair pricing and equitable access conditions.

1.2.3 Ecosystem group 3: Technology Users (Impact Licensees)

The Technology Users (also called Impact Licensees) are the organisations or individuals who adopt the licensed technology and apply it in their respective impact domains. They could be businesses, Non-Governmental Organizations (NGOs), government agencies, or social enterprises working towards societal benefit.

Key Responsibilities:

- Implementing and utilizing the technology within the agreed impact scope.
- Adhering to the boundary conditions for responsible and ethical usage.
- Reporting on impact metrics to demonstrate societal value creation.
- Ensuring that the technology is actively used and not left underexploited.
- Contributing to data collection and knowledge sharing to support further improvements.

Example: An African agricultural cooperative licenses an innovative drought-resistant seed technology from a research university under an IL agreement. The cooperative, as the Technology User, distributes these seeds to smallholder farmers, ensuring compliance with sustainable farming practices and impact assessment criteria.

1.3 Research objective of needs assessment through focus-group workshops and survey

A needs assessment is a structured process used to identify gaps between current and desired outcomes, enabling informed decision-making in various contexts, from healthcare to organisational management [42]

[43]. It systematically evaluates existing performance, defines areas for improvement, and prioritizes needs based on the costs of addressing versus ignoring them [41]. Kaufman's approach emphasizes performance improvements by first defining the desired results and then determining the most effective solutions to achieve them.

The objective of the needs assessment is to identify and analyse the requirements, challenges, and expectations of key stakeholders involved in the IL ecosystem. This assessment aims to establish an understanding of how IL can be operationalized in real-world settings. To achieve this, we conducted four online focus group workshops involving diverse actors representing the three key stakeholder groups—including technology holders, intermediaries, and technology users—to explore their perspectives on impact-driven technology licensing. Insights from these workshops helped us to shape the development of an IL framework (Figure 1). These results were verified via a survey. The proposition statements used in the survey were derived directly from the themes and insights that emerged during the workshops. In this White Paper, the term 'participant' refers to workshop attendees, while 'respondent' is used for individuals who completed the survey.

2 Findings

In this section, we present findings from all focus group workshops and the survey for each individual ecosystem stakeholder group. The survey aimed to validate key findings and explore whether similar patterns held across a broader stakeholder group, providing triangulation for the ecosystem model (Figure 1).

Across workshops, participants called for a clearer delineation of roles and incentives, and for IL agreements to spell out impact domains, eligibility criteria, and economic safeguards. These inputs informed the updated IL ecosystem model in Figure 1 and elevate the design of clearing houses as a priority for implementation and policy.

2.1 Overview of stakeholder consultations

We summarise the composition of workshop participants and survey respondents before presenting needs by stakeholder group.

2.1.1 Workshop participation and descriptive profile

Across four sessions, we engaged 19 participants (see Table 2), including 4 women. Each thematic workshop convened 4–5 participants: Data (n=5), Impact Investment (n=5), Health (n=5), and a Validation workshop (n=4). The cohort spanned university technology transfer officers and research & innovation leaders, IP/legal experts, investors and venture funds, social enterprise and innovation networks, healthcare and information-technology organisations, and public research centres. Discussions focused on needs, barriers, and enablers for IL in practice and directly informed the survey proposition statements. (Methods and anonymised participant list in Annex 5.2.)

2.1.2 Survey sample and descriptive statistics

The survey aimed to validate workshop findings, gather broader stakeholder insights on the IL ecosystem model, and inform future policy recommendations. The survey statements were shaped by insights from the literature review as a starting point and subsequent workshop discussions, with a focus on stakeholder needs and priorities. All figures related to the survey are based only on respondents who completed the full survey; partial responses are not included.

Gender: As shown in Figure 2, the respondent demographics by gender were: 25 men (54%), 16 women (35%), 1 non-binary respondent (2%), and 4 respondents who preferred not to say (9%).

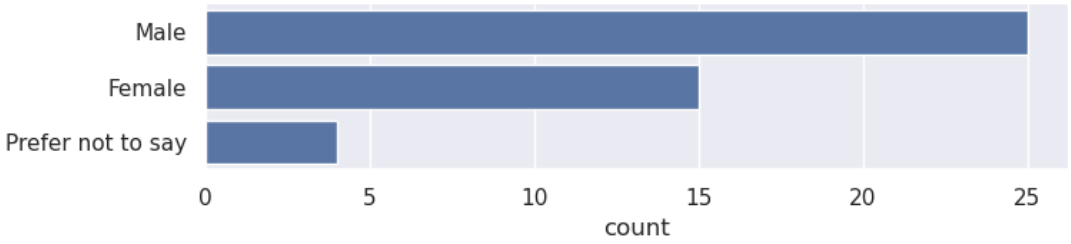

Figure 2 Survey demographics

Stakeholder type: As shown in Figure 3, while all main three stakeholder groups are represented amongst the respondents, the primary stakeholder types among respondents were: Technology Holders (33%, 15 respondents) such as universities, academic research institutions, and private/public sector companies; Intermediaries (33%, 15 respondents) including Technology transfer offices (TTOs), patent law firms, licensing intermediaries, and policy institutions; and Technology Users (13%, 6 respondents) such as SMEs, startups, NGOs, and public health organisations. Additionally, 22% (10 respondents) identified as "Other," with examples including university TTOs, law firms, advocacy organisations, social investors, university professors, open development practitioners, RDI funders, investors/advisors, SME supporters, subcontractors for R&D, and students.

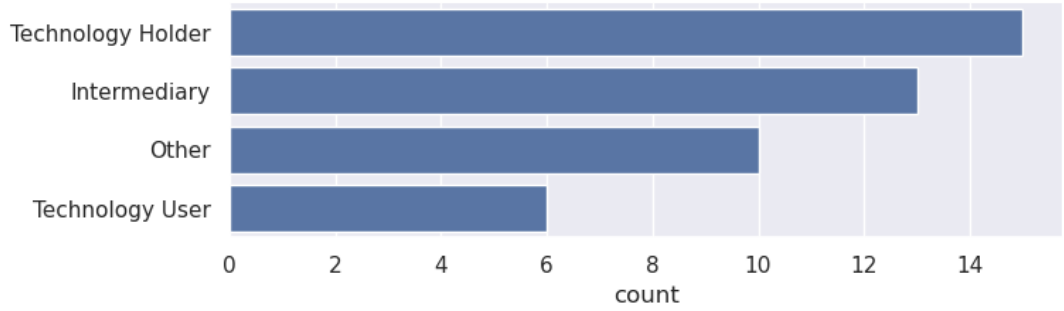

Figure 3 Stakeholder type from survey responses

Geography: The survey was primarily distributed to stakeholders across Europe with some outreach to global participants. As shown in Figure 4, most responses were received from Belgium. This likely reflects stronger engagement from the Belgian network of ILI project partners and highlights the need for targeted outreach

to underrepresented regions to ensure a more geographically balanced dataset in future work.

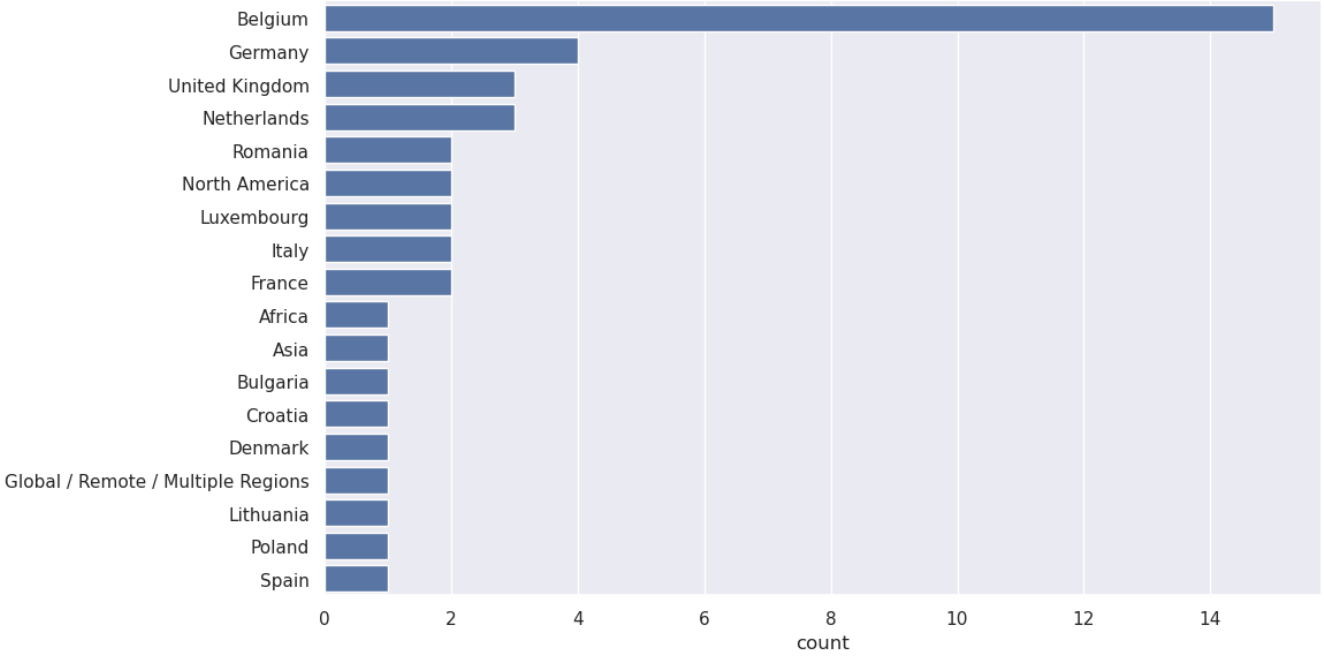

Figure 4 Survey responses by country

These profiles contextualise the findings by indicating who is represented in the data. We next present needs and priorities by stakeholder group (Technology Holders, Clearing Houses, and Technology Users).

2.2 Needs assessment of Ecosystem group 1: Technology Holder (Impact Licensor)

2.2.1 Findings from the focus-group workshops

Technology holders, including two primary groups (universities and companies), play a critical role in impact-driven technology licensing. Insights from the workshops emphasize that for them to effectively participate, they require structured licensing frameworks, financial sustainability, proactive engagement strategies, and institutional adoption pathways. Below we summarize the needs for technology holder from the focus-group workshop transcripts.

- **Market incentives & adoption models**
  - Economic incentives from net-zero transitions should be leveraged for healthcare and impact-driven technologies.
  - Institutional adoption, particularly by organisations like Médecins Sans Frontières and Ministries of Health, is key to scaling technology in underdeveloped healthcare markets.
- **Strategic licensing & market viability**
  - Clearly defining market value through cost assessments can facilitate the adoption of universal healthcare solutions.
  - Financially sustainable models, such as results-based financing, should be developed to support technology deployment in low-income regions.
- **IP & risk management**
  - Structured IL should address secondary and tertiary uses to extend market reach and prevent unauthorized applications.

    - Sector-specific IP frameworks and enforcement strategies can mitigate risks associated with unlicensed technology usage.
- **Bridging gaps in impact licensing**
    - Awareness of IL should be expanded through accelerators, business schools, and social enterprise networks.
    - Entrepreneurial leadership must be fostered to drive adoption beyond traditional licensing frameworks.
- **Universities vs. Companies: Licensing strategies**
    - Universities often prioritize societal impact and can leverage dual licensing approaches, as seen in cases like tenofovir.
    - Research institutes can complement university-led IL strategies by providing additional support mechanisms.
- **Engaging with clearing houses & stakeholders**
    - Clearing houses must ensure integrity, compliance, and financial backing to protect technology holders.
    - Licensing agreements should be designed to balance patent enforcement with accessibility across diverse markets.

These insights highlight the importance of strategic licensing, financial sustainability, and collaborative engagement in advancing impact-driven technology licensing.

2.2.2 Findings from the survey

In this subsection, we summarize survey responses from technology holders. The chart shows distribution of scores on individual statements related to their perceptions, needs, and priorities regarding IL. The texts of the statements are:

1) Technology holders need economic incentives from net-zero transitions to support the development and adoption of healthcare and impact-driven technologies.
2) Technology holders should clearly define market value through cost assessments to facilitate the adoption of universal healthcare solutions.
3) Technology holders require financially sustainable models—such as results-based financing—to support technology deployment in low-income regions.
4) Technology holders need structured impact licensing frameworks that address secondary, and tertiary uses to extend market reach and prevent unauthorized applications.
5) Technology holders benefit from sector-specific intellectual property (IP) frameworks and enforcement strategies to mitigate risks associated with unlicensed technology use.
6) Technology holders should increase awareness of impact licensing through engagement with accelerators, business schools, and social enterprise networks.
7) Technology holders need social entrepreneurial leadership to drive technology adoption beyond traditional licensing frameworks.
8) Technology holders need clearing houses to ensure integrity, compliance, and financial backing to protect technology holders.
9) Technology holders need licensing agreements that balance patent enforcement with accessibility across diverse markets.

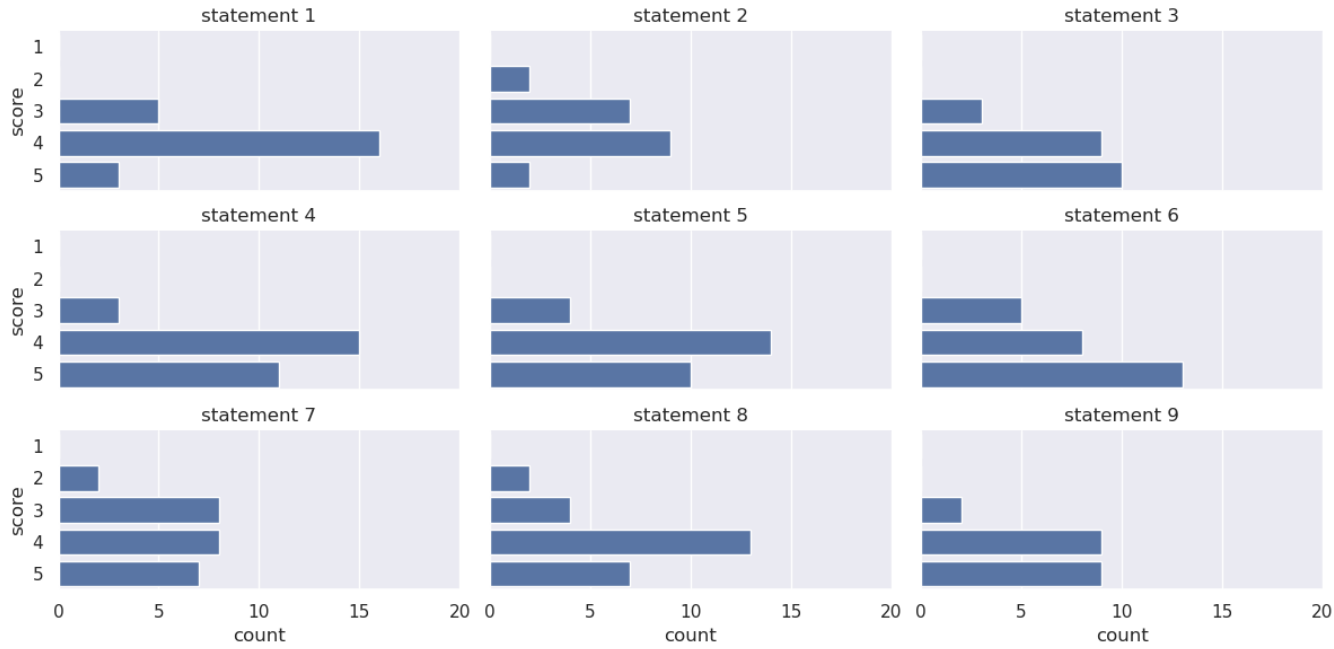

Figure 5 Responses on technology holder statements (n=46).
A score of 1 refers to a response of "strongly disagree", and 5 to "strongly agree".

The qualitative feedback shows alignment between survey results and workshop findings, especially on the need for awareness-building, risk management, and facilitation mechanisms via clearing houses. Respondents reinforced that technology holders frequently lack the entrepreneurial capacity, specialized tools, and administrative resources to navigate social IL independently. A respondent remarked:

"They are not entrepreneurs… they do not have the appropriate set of skills… They need someone to facilitate it."

Structural barriers such as bureaucratic university processes, unclear legal frameworks, and the absence of standardized templates were cited as major constraints.

Concerns were raised over IP leakage—especially in low- and middle-income countries (LMICs)—and over rigid definitions of "market value," which may not account for societal valorisation pathways. Respondents advocated for flexible licensing models that allow for iterative "pivoting" of technology applications, as seen in startup ecosystems. There was also a strong call for processes proportionate to project scale—simplified for small proof-of-concept efforts and more comprehensive for large, well-funded initiatives.

Financial sustainability emerged as a cross-cutting requirement, with results-based financing and alignment with funder KPIs viewed as essential to long-term participation. Respondents emphasized that clearing houses could play a pivotal role by combining legal, technical, and matchmaking support; providing decision-support tools on when to license versus retain trade secrets; and building trusted communities of practice around licensing services. Most saw value in facilitation, though with caveats:

"Technology Holders need the services of the clearing houses."

"The assertion that technology holders need clearing houses is a bit strong—they certainly might benefit from it."

This mirrors the workshop emphasis on bridging institutional gaps and ensuring compliance, while also highlighting the operational challenge of translating licensing agreements into viable, locally embedded implementations. One respondent encapsulated the institutional challenge as:

'' Bureaucracy in universities, I don't have a solution.''

2.2.3 Summary

The two statements that received the highest agreement (avg = 4.32) from survey respondents: (i) increase awareness of IL via accelerators/business schools/social-enterprise networks; and (ii) balance patent enforcement with accessibility in licensing agreements. The lowest agreement (avg = 3.62) concerned clearly defining market value through cost assessments for universal healthcare solutions—consistent with quotes cautioning against early rigidity and highlighting pivots and context-specific valorisation.

Overall, the survey corroborates workshop findings: technology holders prioritize practical enablers (templates, decision tools, facilitation, enforcement strategies, and aligned financing) over prescriptive valuation exercises; they also emphasize trust, risk mitigation (including trade secrets), and administrative streamlining to make IL adoptable at scale.

2.3 Needs assessment of Ecosystem group 2: Clearing House

2.3.1 Findings from the focus-group workshops

As outlined in Section 1.2, clearing houses function as intermediaries between technology holders and users. In our workshops and survey, stakeholders emphasized that their role must extend beyond brokerage, with expectations that they actively enable adoption by providing ready-to-use templates, facilitating matchmaking, and embedding monitoring frameworks. Below we summarize the needs that were identified from analysing the focus-group workshop transcripts.

- **Understanding & addressing user needs**
  - Clearing houses should proactively assess demand-side requirements, particularly for SMEs and under-resourced organisations.
  - They should facilitate technology needs assessments for entities that may not fully understand their own technological gaps.
- **Streamlining licensing & reducing administrative burden**
  - Standardized templates and predefined licensing processes can help lower legal costs and accelerate adoption.
  - Simplifying technology transfer workflows will make IL more accessible to a broader range of users.
- **Process acceleration & market focus**
  - A structured, step-by-step approach should be implemented to reduce licensing timelines from months or years to just weeks.
  - Rather than attempting to cover all UN SDGs at once, clearing houses should prioritize high-impact technology domains.
- **Financial backing & risk management**
  - Clearing houses require strong financial backing from aligned financial institutions to underwrite risks and indemnify technology holders.

    - Depending on the risk tolerance and business model, they may act as either an intermediary or a direct licensee.
- **Overcoming compliance & licensing barriers**
    - Universities and research institutions often hesitate to license technologies to startups, charities, or organisations in the Global South due to risk concerns.
    - Clearing houses should provide institutional support and liability coverage to enable these partnerships.
- **Leveraging AI & Data governance for impact licensing**
    - Collaborations with data intermediaries should be established to integrate responsible AI and governance models into IL frameworks.
    - Licensing mechanisms should be designed to seamlessly align with existing startup and innovation ecosystems.

These findings highlight the role of clearing houses in ensuring efficient, responsible, and scalable IL.

2.3.2 Findings from the survey

In this subsection, we present the results from survey responses for the survey section that includes questions relevant for the design of clearing houses. The chart shows distribution of scores on individual statements related to their perceptions, needs, and priorities regarding impact licensing. The texts of the statements are:

1) Clearing houses should proactively assess demand-side requirements such as from technology users, particularly for small and medium-scale industries and under-resourced organisations.
2) Clearing houses should facilitate technology needs assessments for entities that may not fully understand their own technological gaps.
3) Clearing house should develop and standardized templates and predefined licensing processes to help lower legal costs and accelerate adoption.
4) Clearing houses should simplify technology transfer workflows that will make impact licensing more accessible to a broader range of users.
5) Clearing houses should implement a structured, step-by-step approach to reduce licensing timelines from months or years to just weeks.
6) Clearing houses should prioritize high-impact technology domains rather than attempting to cover all United Nations Sustainable Development Goals at once.
7) Clearing houses require strong financial backing from aligned financial institutions to underwrite risks and indemnify technology holders.
8) Clearing houses may act as either an intermediary or a direct licensee depending on their risk tolerance and business model.
9) Clearing houses should provide institutional support and liability coverage to enable universities and research institutions to license technologies to startups, charities, or organisations in the Global South.
10) Clearing houses that collaborate with data intermediaries should be established to integrate responsible AI and governance models into impact licensing frameworks.
11) Clearing houses should prepare licensing mechanisms designed to seamlessly align with existing startup and innovation ecosystems.
12) Clearing houses play a critical role in ensuring efficient, responsible, and scalable impact licensing.

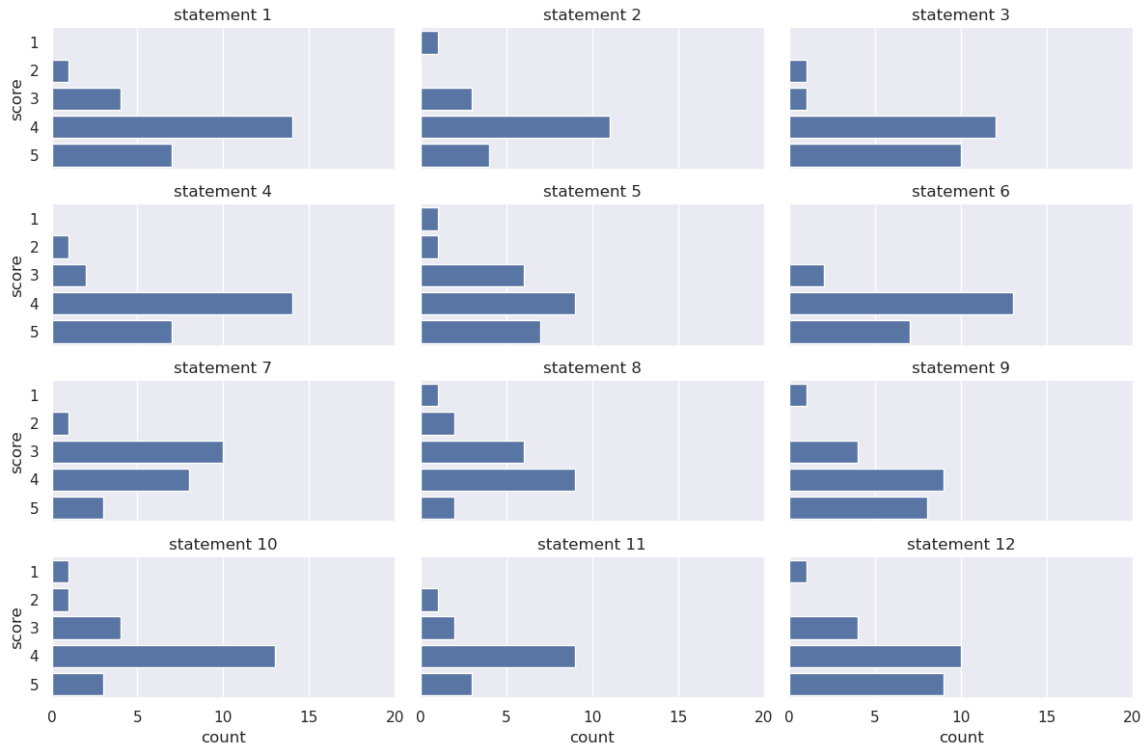

Figure 6 Responses on clearing houses.
A score of 1 refers to a response of "strongly disagree", and 5 to "strongly agree".

The qualitative feedback shows tight alignment between survey results and workshop findings for clearing houses: respondents consistently prioritize standardization, risk support, and active brokerage rather than a narrow legal-only remit. Calls for process harmonization are explicit:

"Standardization and liability insurance seem key."

This was paired with an equally strong expectation that clearing houses do more than passively broker:

"Clearing houses should be proactive in matchmaking."

The highest-scoring survey statements (templates/predefined processes; structured, step-by-step workflows) are reinforced by requests for end-to-end enablement, not just document libraries. One respondent captured this service model as:

"Clearing Houses should provide all necessary tools… like a real estate agent… [who] drafts the pre-sell agreement, prepares the documents for the notary etc."

At the same time, several participants cautioned against speed without diligence—"*While a structured approach seems good, forcing quick decisions to shorten timelines might affect quality of decisions too negatively*"—arguing for risk-based triage that accelerates routine cases while preserving technical and legal depth where complexity warrants it. Some illustrative comments include:

"All of [the] capabilities primarily involve legal/licensing support. If such Clearing Houses also had technical support… success would be greatly increased," and *"Links with RDI funding programmes."*

"Support eHealth strategy and data governance policy and application of AI," alongside building durable networks—*"The animation of a sustainable network… should be financed on the long term… and regularly assessed."* Risk allocation remains a pressure point, with several respondents urging localized liability solutions. For instance, one respondent commented in the survey that "*Liability and indemnification are flashpoints better dealt with on [the] local level… Asking parties… for liability or indemnification coverage often places an unacceptable level of risk."*

2.3.3 Summary

The highest-scoring statement (avg = 4.20) was the need for standardized templates and predefined licensing processes, underscoring demand for predictable, lower-cost execution. Closely related, respondents support structured, step-by-step workflows—with the caveat that acceleration must not compromise technical or legal scrutiny. The lowest-scoring item (avg = 3.26) was that clearing houses act as direct licensees, reflecting concerns about legal exposure, conflicts of interest, and governance clarity. A pragmatic next step would be to pilot role variants (pure intermediary; agent-of-record; limited pass-through) with pre-agreed risk allocation, insurance, and escalation protocols, and to evaluate effects on time-to-close, cost-to-close, compliance quality, and trust across contexts.

Overall, the survey results appear to corroborate most of the workshop findings and might be summarized in such a way that clearing houses should be designed as a standard-setting, risk-aware, and service-oriented intermediary, combining templates + triaged workflows + advisory + trusted matchmaking rather than a purely transactional broker. One respondent encapsulated the role of clearing house as: *''Clearing houses should be proactive in matchmaking.''*

2.4 Needs assessment of Ecosystem group 3: Technology Users (Impact Licensees)

2.4.1 Findings from the focus-group workshops

Technology users, including startups, small businesses, and organisations in underserved markets, require simplified licensing, structured support systems, and mechanisms to foster local innovation ecosystems. These elements are essential for driving technology adoption and maximizing social impact. Below we summarize the needs that have been identified from analysing the focus-group workshop transcripts.

- **Lowering barriers to adoption**
  - Licensing processes should be simplified using standardized templates and predefined steps to make them accessible for technology users, particularly if they are startups and small businesses.
  - IP agreements need to be less complex to enable easier and more cost-effective adoption.
- **Access & expertise support**
  - Access to patented technologies must be paired with technical know-how, expertise, and financial backing to ensure successful implementation.
  - Grants and investment partnerships should be established to help startups and local enterprises integrate new technologies.
- **Building local market ecosystems**
  - Technology users should be empowered to replicate and adapt technologies for their local markets, fostering long-term sustainability.
  - Stronger partnerships with local businesses, governments, and institutions can help overcome operational and legal challenges.

- **Capacity building & knowledge transfer**
  - Training, tools, and skill development programs should be made available to support the commercialisation and implementation of licensed technologies.
  - Facilitating partnerships can help ensure long-term success through effective knowledge transfer.
- **Managing risk & complexity**
  - Technology users require structured support to navigate legal, regulatory, and financial complexities associated with technology adoption.
  - Risk management mechanisms should be established to help technology users effectively handle these challenges.
- **Ensuring fair & equitable access**
  - Strategies must be in place to address demand surges and ensure fair distribution of technologies to technology users across different regions and sectors.
  - Licensing frameworks should prevent technology users from exclusion based on financial or geographic limitations, ensuring equitable access for all.

These needs highlight the importance of a user-friendly, well-supported licensing ecosystem that facilitates technology adoption while fostering local innovation and sustainability.

2.4.2 Findings from the survey

In this subsection, we summarize survey responses from the survey section that is relevant for the technology user stakeholder group. Figure 7 shows the distribution of scores on individual statements related to their perceptions, needs, and priorities regarding IL. The texts of the statements are:

1) Technology users prefer simplified licensing processes with standardized templates and less complex IP agreements to enable easier and more cost-effective adoption.
2) Technology users need access to patented technologies paired with technical know-how, expertise, and financial backing to ensure successful implementation.
3) Technology users benefit from grants and investment partnerships that support the integration of new technologies by startups and local enterprises.
4) Technology users should be empowered to replicate and adapt technologies for their local markets to foster long-term sustainability.
5) Technology users require stronger partnerships with local businesses, governments, and institutions to overcome operational and legal challenges.
6) Technology users need access to training, tools, and skill development programs to support the commercialisation and implementation of licensed technologies.
7) Technology users benefit from facilitated partnerships that promote long-term success through effective knowledge transfer.
8) Technology users require structured support to navigate the legal, regulatory, and financial complexities of technology adoption.
9) Technology users need risk management mechanisms to effectively address legal, regulatory, and financial challenges.

10) Technology users require strategies to manage demand surges and ensure fair distribution of technologies across regions and sectors.

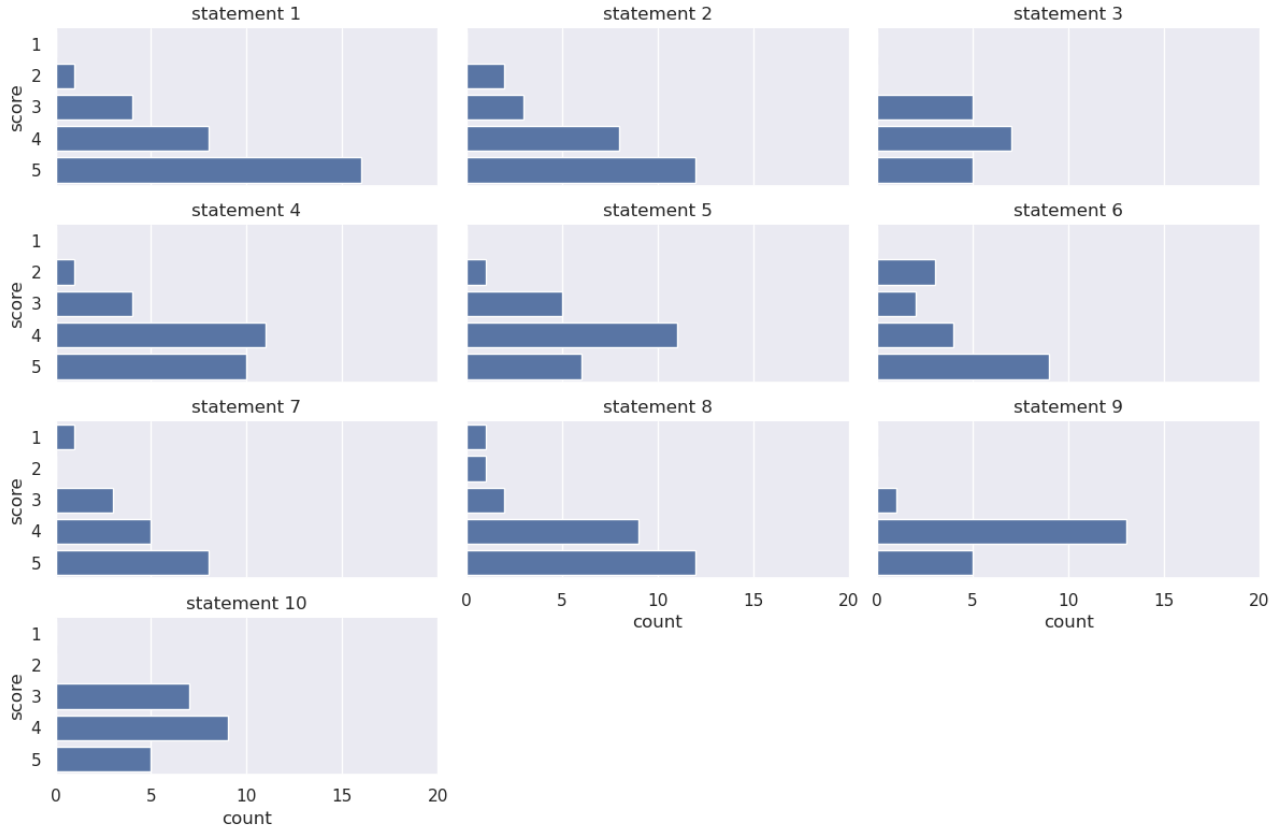

Figure 7 Responses on technology users.
A score of 1 refers to a response of "strongly disagree", and 5 to "strongly agree".

The survey feedback from technology users aligns well with what we heard from participants in the workshops: stakeholders prefer low-friction licensing with practical support, not just abstract "access." The most-agreed item (avg = 4.34) was the call for simpler, template-based agreements with fewer IP hurdles, especially for SMEs and NGOs that do not have considerable in-house legal teams. One of the survey respondent commented that: *"Removing the red tape of patents and replacing it with easy-to-use licensing schemas may be a solution."*

Users also stressed that access by itself isn't enough. They need hands-on enablement—pilot projects, technical assistance, and early/blended finance—to prove feasibility and de-risk adoption in local contexts. Some respondents commented:

"Money alone will do nothing. Technical assistance is key."

"I have not seen any success without market pull… [users] can only do this by having knowledge and money."

On governance, respondents prefer common frameworks that cut through complexity, but warned against over-engineering that could slow real-world uptake. Some respondents remarked:

"Legal, regulatory and financial support is essential… Ideally, these complexities are reduced by common frameworks."

"…this may be over-regulated to the point where opportunities for impact and value are reduced."

Finally, several respondents reminded us that valuable know-how is often not patented, and IL needs to account for trade secrets and tacit knowledge, not only patents. One of the noteworthy comments is:

"Technologies do not necessarily need to be 'patented'… know-how should also be considered.".

2.4.3 Summary

From the survey responses, technology users most strongly supported simplified, template-driven licensing with reduced IP complexity (avg = 4.34), signaling a need for predictability and lower transaction costs. The lowest-scoring item concerned managing demand surges and fair distribution (avg = 3.82), suggesting that while equity mechanisms matter, users see immediate enablement—templates, technical assistance, finance, and pilots—as the priority.

Overall, the findings highlight that a successful uptake depends on pairing streamlined licensing with practical support and market-pull readiness, delivered through proportionate governance (including trade-secret handling and sensible liability) rather than heavy bureaucracy.

2.5 Summary of findings from needs assessment

The survey broadly mirrors the workshop themes and none of the statements we included for verification received considerably low scores. For technology users, the top-rated statement — that they prefer simplified licensing processes with standardized templates and less complex IP agreements — was echoed in workshops too, where participants stressed the importance of reducing complexity:

"If we want smaller organisations to adopt these technologies, the paperwork and legal terms have to be easy to navigate, not a barrier."

For technology holders, one of the most supported statements — increasing awareness of IL through accelerators, business schools, and social-enterprise networks — matched workshop calls for stronger outreach:

"We need to create awareness in entrepreneurial communities; otherwise, the concept stays locked in academic and legal circles."

In the clearing houses group, the strongest agreement was with the need to develop standardized templates and predefined licensing processes to lower costs and speed adoption. Workshops reinforced this, noting that clearing houses must be more than brokers:

"Clearing houses shouldn't just introduce people; they should bring ready-to-use agreements so projects can start without months of back-and-forth."

Together, these alignments suggest that survey and workshop participants share a clear vision: streamlined processes, practical tools, and active facilitation are central to making IL work at scale. Broadly, the survey confirms several patterns identified in the workshops—such as the need for structured matchmaking, concerns around liability, and the importance of clearing houses, while also adding nuance on practical barriers and stakeholder priorities.

Statistical highlights and limits: Below we present the highlights of survey results based on the statistical observations:

- The biggest difference of opinion with highest standard deviation of the entire survey is 1.15 and the proposition is:

Technology users need access to training, tools, and skill development programs to support the commercialisation and implementation of licensed technologies.

- The lowest difference of opinion with lowest standard deviation of the entire survey is 0.59 and the proposition is:

Technology users need risk management mechanisms to effectively address legal, regulatory, and financial challenges.

The main limitation of our current data set is that it only contains 46 complete responses, which is a very small sample size to be broken down into sub-groups and present significant findings on differences between groups of respondents. For example, breaking up by stakeholder type (Intermediary, Technology Holder, Technology User), we note that each statement received only 1-6 responses from respondents that gave their stakeholder type as technology user, which is not sufficient to draw significant conclusions from.

- The statement that intermediaries and technology holders disagreed the most is the statement with the largest difference in score between respondents of stakeholder types Intermediary (avg 3.33, N=9) and Technology Holder (avg 4.60, N=10). The proposition is:

Technology users need access to patented technologies paired with technical know-how, expertise, and financial backing to ensure successful implementation.

Together, these findings informed our targeted and evidence-based recommendations in the following section.

3 Conclusion & next steps for policy and implementation

This White Paper consolidates evidence from focus-group workshops held in Winter 2025 and survey responses collected between April and June 2025. First and foremost, the results highlight the critical role of clearing houses for an effective IL ecosystem at scale. Stakeholders expect them to play a role as standard-setting, risk-sharing, and matchmaking intermediaries that can operationalize socially responsible licensing at scale. Stakeholders in the IL ecosystem articulate the need for clearing houses as active enablers that must go beyond brokerage, providing ready-to-use agreements, curating legal and financial tools, and embedding monitoring aligned with global standards such as the UN SDGs.

At the same time, the perspectives of technology users, holders, and the wider innovation ecosystem point to complementary needs that must be addressed to ensure Impact Licensing (IL) becomes practical and scalable. Stakeholders are calling for:

- simplified licensing processes with standardized templates and governance mechanisms that reduce administrative burdens and enable smaller organisations to participate, and
- emphasize the need for stronger awareness-raising and outreach beyond academic and legal communities, particularly through accelerators, business schools, and entrepreneurial networks, as

Together, these findings suggest that a shared vision, streamlined processes, proactive facilitation, and stronger awareness-building are central to making IL work at scale.

Policy priorities: Building on these findings, three priority areas for policy and practice can be identified:

- Pilot clearing houses: Launch pilots in 2–3 sectors (e.g., health, climate adaptation) to further learn how to best design them and what resources and capabilities they need to possess for effectively implementing IL, e.g. test service models, standardized agreements, and risk-sharing mechanisms.
- Integrate finance and impact metrics: Develop blended finance facilities and embed outcome-linked clauses in contracts to align incentives for technology holders and investors.
- Capacity and awareness-building: Create training modules, legal toolkits, and accelerator partnerships to strengthen adoption among universities, SMEs, and public-sector organisations.

Conceptualization and design specification of CH and its piloting: For these priorities to take root, particular attention must be given to the conceptualization and design of clearing houses. This includes clearly defining their responsibilities, ensuring they have the necessary resources and capabilities, and supporting the recruitment and onboarding of intermediaries who can take on this role. Future pilots should test not only the technical feasibility of clearing houses but also their governance, financing, and service models. The planned *Impact Licensing Institute* may play a key role in advancing this agenda.

Building clearing house networks and capacity: Beyond individual pilots, given the crucial role of CHs, the findings strongly point towards the need for further investments needed to further understand the profiling, selection, recruitment, and onboarding of intermediaries capable of becoming effective (well-resourced and equipped with the necessary capabilities) clearing houses, including Technology Transfer Offices (TTOs) and innovation agencies. At a systems level, supporting networks of clearing houses will be essential to pool expertise, share templates, and reduce transaction costs across regions. These investments are not a technical detail but a precondition for making IL workable and sustainable.

Role of the impact investment community: The findings identify the impact investment community as another key stakeholder in the IL ecosystem. Financing mechanisms that align measurable impact with returns are essential to scaling IL, yet this remains underexplored. Future research should deepen understanding of how investors and blended finance structures can best be integrated into IL frameworks.

Data governance and compliance: The design of clearing houses and data collaboratives must also reflect the evolving data governance landscape. Responsible data stewardship—ensuring data is managed, shared, and re-used with principles of quality, ethics, and accountability—can foster trust and enable collaboration across stakeholders. At the same time, regulatory compliance extends beyond the GDPR to include the 2023 Data Act. Policymakers should therefore support frameworks that integrate responsible stewardship with compliance, ensuring that data collaboratives enhance innovation while safeguarding rights and societal value.

Final reflections: The evidence presented here provides a basis for shaping policy agendas that embed IL into EU innovation strategies, national IP frameworks, and multilateral development programs. By prioritising clearing house design, financing mechanisms, and responsible data governance, policymakers can accelerate the transition from fragmented technology transfer to a coherent, measurable, and impact-oriented licensing ecosystem.

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Annex A

5 Description of methods

5.1 Methodology for systematic review of Socially Responsible Licensing

We study the latest research contributions in Socially Responsible Licensing (SRL) in various sectors and use the results from the first iteration of a systematic review strategy [44] (see Figure 1). The literature review includes both academic as well as grey literature. For this report version we have focused on publications listed in the Google Scholar (GS) database. GS tends to include common peer-reviewed publications published in academic journals, such as those enlisted in dedicated academic databases (e.g. Scopus, Web of Science), but also tends to include additional publications (i.e. grey literature, conference papers, working papers), also including studies from LES Nouvelles of the Licensing Executive Society International (LESI).

Our emphasis was on the most recent literature from 2020 to present. We include studies written in English language only. The main keyword used for the search was ''Socially Responsible Licensing''. We identified 76 articles, including peer-reviewed academic journal articles, book chapters, conference proceedings, and reports. From an initial screening we considered 34 articles as relevant for this literature review of which 25 articles were screened for their direct linkages and high relevance to our research objective, which is to study key concepts and guiding principles of SRL. For this initial version of the literature, we only included articles that were accessible through the Cambridge University Library. We plan to broaden our search strategy—such as by using snowballing—to include concepts closely related to SRL. We also plan to include additional practitioner databases.

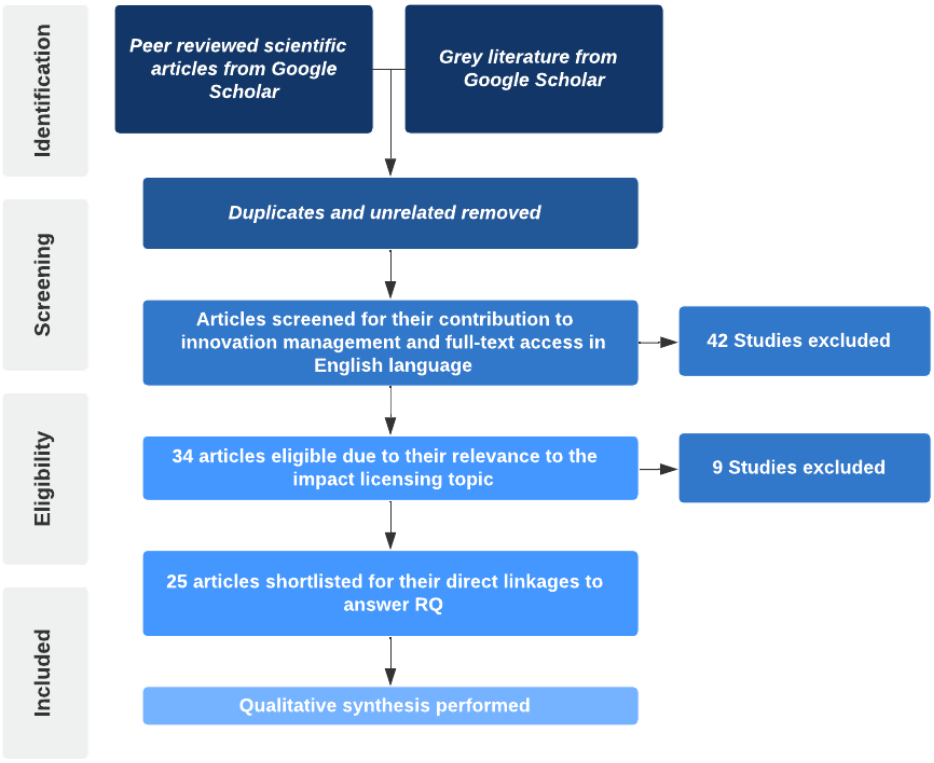

Figure 8 Systematic review process

5.2 Research design of focus group workshops

Focus groups are a qualitative research method used to gather insights from participants through guided discussions on specific topics [45]. This research method is useful for exploring diverse perspectives, identifying common themes, and generating rich contextual data. In this study, we conducted focus group workshops to engage key stakeholders from different ecosystem groups for needs assessment. The interactive nature of the workshops facilitated knowledge exchange, enabled stakeholders to articulate their needs and challenges, and helped validate findings through collective discussion. The structured yet flexible format of focus groups allowed for dynamic conversations that informed the development of impact licensing strategies and for refining the Impact Licensing Ecosystem Model.

The first three workshops focused on understanding stakeholder needs in three distinct thematic areas—Data, Impact Investment, and Health—while the fourth served as a validation workshop to refine and verify findings from the first three workshops. The process involved:

- Stakeholder Identification – Identifying 10-15 key stakeholders per theme using project partner networks, SAB members, LinkedIn, and snowballing techniques.
- Ethics & Refinement – Refining the stakeholder list and obtaining ethics approval from the University of Cambridge.
- Engagement & Recruitment – Approaching identified stakeholders, briefing them about the project, assessing their willingness to participate, and finalizing participants for scheduled workshops.

- Workshop Execution – Conducting the online workshops using Microsoft Teams to facilitate discussion.
- Data Collection & Analysis – Recording, transcribing, and analysing discussions to synthesize and generalize key insights from all three thematic workshops.
- Validation & Ecosystem Model Update – Using the fourth validation workshop with representatives from each theme to verify and refine findings, contributing to an updated IL ecosystem model.

5.2.1 Study design

Study setting and data collection: Our study received approval from the University of Cambridge's ethics committee from the Engineering department. The workshops were conducted virtually to ensure accessibility for participants across different regions. Prior to participation, we invited attendees based on their expertise and relevance to the study and obtained their informed consent for their involvement. Each session lasted approximately 90 minutes and was designed to facilitate open discussions on challenges, needs, and opportunities within impact licensing. Audio recordings and detailed notes were used for analysis, to attain a comprehensive understanding of stakeholder perspectives.

Below we provide an anonymized list of participants invited to the four workshops, including the validation workshop. Each session had 4 to 5 participants who attended the full session and actively participated. The organisations have been generalized to maintain anonymity.

Table 2 Overview of focus-group workshops conducted for the needs assessment.

Participant	Organisation Type	Expertise	Workshop and Date
Participant 1	Health Data Organisation	Health data, open data, entrepreneurship	Workshop 1 – Data (25 Feb 2025, 9:00–10:30 AM, London time)
Participant 2	Data Science Organisation	Data spaces	
Participant 3	Intellectual Property Firm	Vice President	
Participant 4	National Scientific Research Centre	Global citizenship	
Participant 5	Digital Innovation Network	Innovation lead	
Participant 6	University Tech Transfer Office	Associate Director	Workshop 2 – Impact Investment (26 Feb 2025, 3:00–4:30 PM, London time)
Participant 7	Social Enterprise	Social entrepreneurship	
Participant 8	Investment Firm	Impact investor	
Participant 9	Technology Venture Fund	Investment	
Participant 10	University	Tech transfer	
Participant 11	University Biomedical Department	Vice Rector	
Participant 12	Healthcare Company	Patent attorney	

Participant 13	University Research & Innovation Office	Chief Technology Officer	Workshop 3 – Health (28 Feb 2025, 9:00–10:30 AM, London time)
Participant 14	Technology Park	Community of Practice member	
Participant 15	Health Organisation	Healthcare	
Participant 16	Health Data Organisation	Health data, open data, entrepreneurship	Validation Workshop (12 Mar 2025, 9:00–10:30 AM, London time)
Participant 17	Health Organisation	Healthcare	
Participant 18	University Research & Innovation Office	Chief Technology Officer	
Participant 19	University	Tech transfer	

5.2.2 Data analysis

We audio-recorded and transcribed all focus group discussions for analysis. Our research team systematically reviewed the transcripts to ensure accuracy. We used a thematic analysis approach, identifying key themes through a preliminary coding process. We then consolidated thematic patterns to highlight commonalities and differences across stakeholder groups, helping uncover insights into the needs relevant to IL, particularly in shaping conclusions on the role and importance of clearing houses.

5.3 Research design of survey study

To complement the insights from the focus-group workshops, a follow-up survey was designed to validate and expand the needs assessment across the three stakeholder groups of the IL ecosystem — technology holders, clearing houses, and technology users. The instrument, built on Qualtrics, was structured to balance depth with respondent engagement, using randomized blocks to manage response burden. Over 200 potential participants were identified through targeted outreach, with additional recruitment via project events and snowballing to boost responses. The survey captured both quantitative data and qualitative inputs on needs, challenges, and priorities. Conducted over a two-month period, the survey was open from 15 May to 12 June 2025 and generated 46 responses, which form the basis of this report.

I. Survey Part 1: Introduction

Estimated time: 10–15 minutes

Responses are anonymous. No personal data will be collected apart from stakeholder type and region.

Purpose:

This survey is part of a European Union (EU) funded research project to validate and extend insights from expert workshops on impact licensing. This research aims to conduct a needs assessment to explore current approaches to Impact Licensing (also referred to as Socially Responsible Licensing) and assess the tools available to practitioners.

What is Impact Licensing? Impact Licensing is a technology transfer framework designed to balance economic value with social and environmental impact by enabling technology access in markets with high societal value.

We aim to capture diverse stakeholder perspectives to identify needs, challenges, tools, and priorities around impact-driven technology licensing. Your input will inform the upcoming White Paper on policy recommendations.

Below figure illustrates the core of the impact licensing ecosystem with three different stakeholder groups included in the process:

1) **Clearing houses**: We use this term in our project to represent intermediary organisations (brokers) that screen technologies and guide the process from technology holder to technology user. They play a crucial role in facilitating impact licensing by acting as trusted intermediaries that simplify processes, reduce risks, and accelerate technology adoption in underserved markets.
2) **Technology holders**: Mainly including two primary groups (universities and companies), play a critical role in supplying technologies into the impact licensing process.
3) **Technology users**: Include organisations on the demand side wanting to access technology supplied by the technology holders, including startups, small businesses, and NGOs mostly in underserved markets, that require simplified licensing, structured support systems, and mechanisms to foster local innovation ecosystems.

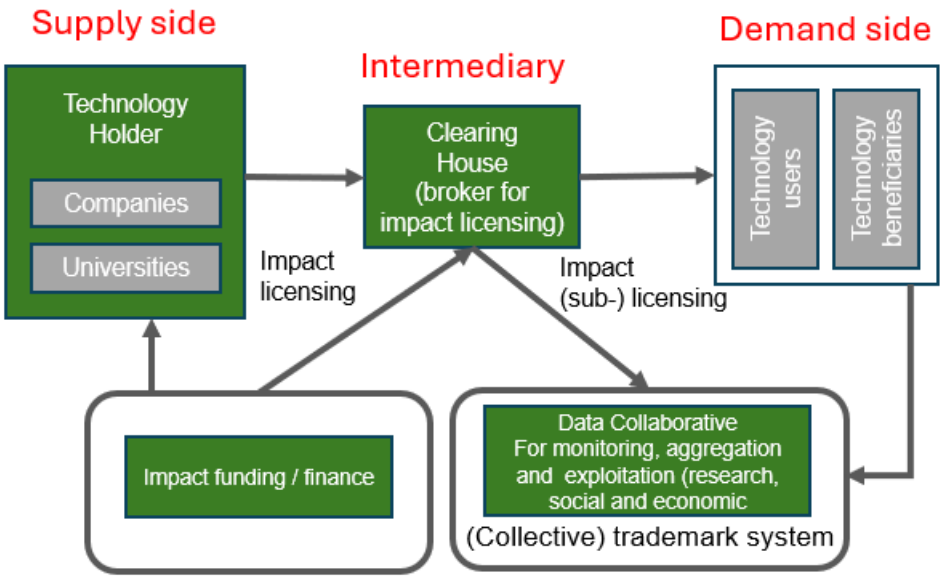

Figure 9 Impact Licensing Ecosystem Model (Source: Impact Licensing Initiative project proposal)

This research has ethical approval from the Engineering Research Ethics Committee at the University of Cambridge. For further information, please reach out to Dr Soujanya Mantravadi (Researcher, Cambridge) on sm2608@cam.ac.uk and the project website is: https://impactlicensing.eu/

Who should participate? Anyone involved in or knowledgeable about socially responsible licensing (e.g. impact licensing)—whether as a technology holder, clearing house, or technology user.

The survey is expected to take 10-15 minutes to complete and is divided into the following sections:

- Clearing houses
- Technology holders
- Technology users
- Demographics

II. Survey Part 2: Clearing Houses

We use the term 'clearing Houses' in our project to represent intermediary organisations (brokers) that screen technologies and guide the process from technology holder to technology user. They play a crucial role in facilitating impact licensing by acting as trusted intermediaries that simplify processes, reduce risks, and accelerate technology adoption in underserved markets.

Instructions: Please indicate your level of agreement with the following statements based on your knowledge or experience.

1) Clearing houses should proactively assess demand-side requirements such as from technology users, particularly for small and medium-scale industries and under-resourced organisations.
2) Clearing houses should facilitate technology needs assessments for entities that may not fully understand their own technological gaps.
3) Clearing house should develop and standardized templates and predefined licensing processes to help lower legal costs and accelerate adoption.
4) Clearing houses should simplify technology transfer workflows that will make impact licensing more accessible to a broader range of users.
5) Clearing houses should implement a structured, step-by-step approach to reduce licensing timelines from months or years to just weeks.
6) Clearing houses should prioritize high-impact technology domains rather than attempting to cover all United Nations Sustainable Development Goals at once.
7) Clearing houses require strong financial backing from aligned financial institutions to underwrite risks and indemnify technology holders.
8) Clearing houses may act as either an intermediary or a direct licensee depending on their risk tolerance and business model.
9) Clearing houses should provide institutional support and liability coverage to enable universities and research institutions to license technologies to startups, charities, or organisations in the Global South.

10) Clearing houses that collaborate with data intermediaries should be established to integrate responsible AI and governance models into impact licensing frameworks.
11) Clearing houses should prepare licensing mechanisms designed to seamlessly align with existing startup and innovation ecosystems.
12) Clearing houses play a critical role in ensuring efficient, responsible, and scalable impact licensing.

Open question 1: Please share specific comments you have on any of the items above, preferably referring to the item number.

Open-ended question 2: What other key roles or capabilities should clearing houses develop to enable impact licensing?

III. Survey Part 3: Technology Holders

Mainly including two primary groups (universities and companies), play a critical role in supplying technologies into the impact licensing process.

Instructions: Please indicate your level of agreement with the following statements.

1) Technology holders need economic incentives from net-zero transitions to support the development and adoption of healthcare and impact-driven technologies.
2) Technology holders should clearly define market value through cost assessments to facilitate the adoption of universal healthcare solutions.
3) Technology holders require financially sustainable models—such as results-based financing—to support technology deployment in low-income regions.
4) Technology holders need structured impact licensing frameworks that address secondary, and tertiary uses to extend market reach and prevent unauthorized applications.
5) Technology holders benefit from sector-specific intellectual property (IP) frameworks and enforcement strategies to mitigate risks associated with unlicensed technology use.
6) Technology holders should increase awareness of impact licensing through engagement with accelerators, business schools, and social enterprise networks.
7) Technology holders need social entrepreneurial leadership to drive technology adoption beyond traditional licensing frameworks.
8) Technology holders need clearing houses to ensure integrity, compliance, and financial backing to protect technology holders.
9) Technology holders need licensing agreements that balance patent enforcement with accessibility across diverse markets.

Open question 1: Please share specific comments you have on any of the items above, preferably referring to the item number.

Open-ended question 2: What barriers do technology holders face in licensing for impact, and how can these be addressed?

IV. Survey Part 4: Technology Users

Include organisations on the demand side wanting to access technology supplied by the technology holders, including startups, small businesses, and NGOs mostly in underserved markets, that require simplified licensing, structured support systems, and mechanisms to foster local innovation ecosystems.

Instructions: Please indicate your level of agreement with the following statements.

1) Technology users prefer simplified licensing processes with standardized templates and less complex intellectual property agreements to enable easier and more cost-effective adoption.
2) Technology users need access to patented technologies paired with technical know-how, expertise, and financial backing to ensure successful implementation.
3) Technology users benefit from grants and investment partnerships that support the integration of new technologies by startups and local enterprises.
4) Technology users should be empowered to replicate and adapt technologies for their local markets to foster long-term sustainability.
5) Technology users require stronger partnerships with local businesses, governments, and institutions to overcome operational and legal challenges.
6) Technology users need access to training, tools, and skill development programs to support the commercialisation and implementation of licensed technologies.
7) Technology users benefit from facilitated partnerships that promote long-term success through effective knowledge transfer.
8) Technology users require structured support to navigate the legal, regulatory, and financial complexities of technology adoption.
9) Technology users need risk management mechanisms to effectively address legal, regulatory, and financial challenges.
10) Technology users require strategies to manage demand surges and ensure fair distribution of technologies across regions and sectors.

Open question 1: Please share specific comments you have on any of the items above, preferably referring to the item number.

Open-ended question 2: What kind of support or resources would help you (or your organisation) adopt and scale impact-driven technologies?

V. Survey Part 5: Demographics

1. **What is your primary stakeholder type?**

Please select the category that best represents your current professional role in the impact licensing ecosystem.

- Technology Holder (e.g., university research centre, academic or independent research institution, private or public sector company)
- Intermediary (e.g., Technology Transfer Office, patent law firm, licensing intermediary, or policy institution)

- Technology User (e.g., small and medium-sized enterprise [SME], startup, non-governmental organisation [NGO], public health organisation)
- Other (please specify)

2. **Which country or region are you primarily based in?** *(Please select one)*

- [Dropdown list of EU countries]
- Iceland, Liechtenstein and Norway
- Switzerland
- Other European country (please specify)
- United Kingdom and North America
- Latin America and the Caribbean
- Africa
- Asia
- Australia and Oceania
- Global / Remote / Multiple Regions
- Not applicable (I selected a European country above)

3. **Which of the following best describes your gender?**

- Man
- Woman
- Non-binary
- Prefer to self-describe (please describe)
- Prefer not to say

4. **Do you identify as transgender or have a transgender history?**

- Yes
- No
- Prefer not to say

5. **How familiar are you with the concept of impact licensing?**

- Very familiar – I have actively worked with or implemented impact licensing models
- Somewhat familiar – I have some knowledge or exposure to impact licensing concepts
- Not very familiar – I have heard of it but do not understand it in depth
- Not at all familiar – I am not aware of what impact licensing entails