

Innovating Libraries: The LibrarIN Toolkit for Policy and Practice



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Abstract This chapter presents the LibrarIN Toolkit, designed to support the transformation of European libraries to address societal challenges and adapt to the changing needs of their communities through value co-creation and social innovation. The Toolkit addresses the “European innovation paradox” by providing tools and methods that translate research into actionable policy and practice. It comprises three main components: the Library Policy Tracker, the What-Works Database, and the Research Knowledge Base. The Toolkit allows for the benchmarking of National Library policies, fostering the adoption of EU-level recommendations, showcases examples of social innovation practices, and offers a repository of research literature on social innovation in libraries. The Toolkit was developed through a collaborative process involving library experts and policymakers, illustrating the effectiveness of co-creation, evidence-based advocacy, and context-specific innovation.

The chapter provides an example of how each of the tools can be used to support the implementation of AI and digital innovation in library services and operations. By aligning with EU priorities and promoting stakeholder engagement, the LibrarIN Toolkit aims to empower libraries as key pillars of democracy and social cohesion.

Keywords Libraries · Social Innovation · Toolkit · Library Policy Tracker · What-Works Database · Value co-creation · Policymakers · Practitioners

1 Introduction

Libraries underpin vibrant democracies [1]. They play a key role in social inclusion and cohesion and are well-placed to contribute to tackling societal challenges. Under the EU Work Plan for Culture 2023–2026, library experts and policymakers

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are called upon to define a roadmap to strengthen the multiple roles of libraries as transmitters of cultural works, skills, and European values [2]. To fulfil these important roles, libraries need to be creative and responsive to change. This requires ongoing innovation and a commitment to changing community needs [3].

There is a need for social innovation in libraries and the participation of communities in the future of libraries, as both trends are increasingly important. Libraries need to perform new functions that can “reposition” them at the core of cultural and socio-economic activity in the neighbourhoods, cities, and regions where they operate, and where they constitute a key part of the innovation ecosystems. Consequently, libraries’ immense potential for promoting entrepreneurship, or other public services, may lead to new ways of sustainable development and funding. This requires social innovation and new managerial models where participation and co-creation become possible. Additionally, expectations for increased public value creation to meet today’s users’ complex demands for public libraries are rising, as well as the pressure to deliver high-quality services in an efficient and accountable manner.

In this context, the transformation of libraries providing public services requires thinking of inclusive ways of citizen engagement to create public value. The traditional view of top-down public administrations, in which citizens can only passively absorb supply-led services, is no longer appropriate. The challenges mentioned above increase the need for a demand-driven design of public library services that incorporate the opportunities provided by new technologies to enable the effective engagement of citizens and organisations “to unlock social assets”.

2 The Need for LibrarIN Tools for Library Policymakers and Innovators

In December 1995, the Green Paper on innovation (Com 95/688) [4] introduced a term that framed the debate on innovation policy for decades: the so-called European innovation paradox, which argued that Europe was excellent in research but failed to exploit this knowledge effectively. It is fair to say that this paradox is very much visible in the context of research about public administration—including public libraries—and e-government, which are frequent topics in the New Bauhaus and Green Deal initiatives and where European researchers have been global leaders. However, this impressive body of research (both in quality and quantity) has achieved a limited impact on the practice and policy of European governments. Typically, research projects delivered a substantial review of the state of the art, a set of well-designed pilots, and a well-written, ambitious exploitation plan. While the insights from research were significant, the actual impact on the practice was minimal: the increased attention to openness and co-creation was more the result of institutional isomorphism than of evidence-based policymaking [5].

The LibrarIN project aims to overcome this paradox and dedicates a significant part of the project to achieving policy impact. Rather than focusing on a set of

micro-actions, it already includes activities for scaling up public libraries' innovation at a systemic level, by leveraging and learning from the substantial amount of innovation that is already taking place. Too often, public libraries are considered purely resistant to change, when actually they must deal with a complex reality and constantly negotiate their action. LibrarIN recognises this and precisely aims to empower the innovators inside public libraries (policymakers and practitioners) by providing them with the best possible evidence, ambitious policy recommendations and ways to demonstrate progress. This allows them to adapt to the changing needs of their community, contributes to addressing societal challenges, and strengthens their role as vibrant pillars of democracy and social cohesion.

LibrarIN aims to be not only a source of knowledge but a service for change in public libraries. To do so, it creates a set of tools and methods that provide both the knowledge and the incentives to support implementation, sharing some of the most advanced European experiences in social innovation in libraries.

The LibrarIN policy support towards value co-creation and social innovation for a new generation of European libraries is built on three strands of activities. First, LibrarIN research results and insights generate the basis for bold but actionable policy recommendations that provide greater legitimacy and endorsement for libraries' innovators. The LibrarIN evidence-based recommendations are presented in high-impact policy briefs and accompanied by policy roundtables to pave the way for proposed innovation measures. The first LibrarIN policy brief on *Reimagine Libraries: Sparking Collaboration for Innovation to Tackle Libraries' 21st Century Challenges*, provided a first version of the LibrarIN co-creation for library innovation framework and four policy action areas to consider [6]. The evidence-based policy recommendations were rooted in the current policy debate, and expert feedback from library practitioners contributing to the LibrarIN project via its Stakeholder Panel [7]. This collaborative approach linking research results with insights from expert practitioners and policymakers has been key to the delivery and uptake of LibrarIN policy briefs. The second brief *Boosting and Evaluating Collaborative Innovations in Libraries: Managerial Guidelines and Policy Implications* provides practical guidelines for library practitioners to leverage the LibrarIN Research Framework for library innovation [8]. The third and joint TELL and LibrarIN brief, *Collaborative Innovation and Best Practice Diffusion in European Libraries: Adapting for Local Impact*, lists smart library tools and actionable policy recommendations to ensure the effective spread of inspiring and adaptable examples for library innovation in Europe [8, 9]. At the time of writing, additional policy briefs are planned to be published on the new metrics for library transformation, implementing Artificial Intelligence (AI), social entrepreneurship, and living labs to develop innovative public services in ways that enable the co-creation of value.

The second strand of policy support covers the knowledge to implement those recommendations. Co-creation is both an art and a science. LibrarIN provides a structured knowledge base of good practices and open platforms for mutual learning between libraries. It will create a trusted space for honest and direct dialogue

between practitioners and researchers, through a set of state-of-the-art online and offline instruments: a database, panel events, and online engagement.

Finally, the third strand of policy support offers a system to track policy progress transparently, intuitively, and appealingly. The LibrarIN policy tracker is a central point of reference to discover who is doing what. The tracker offers incentives for decision-makers to adopt co-creation policy measures by providing a recognition system, again designed to empower innovators inside libraries. Libraries can benchmark National Library policies on a set of “policy indicators”: binary variables regarding the implementation of the European Council recommendations on library legislation, corroborated by evidence.

The following sections will focus on the LibrarIN Toolkit, providing policy support via the above-described strands of activities.

3 Description of the Toolkit

This section describes each of the three tools available in the LibrarIN Toolkit and how their collaborative design and implementation with the LibrarIN community of researchers, practitioners, and policymakers ensure alignment with the community needs. Thus, it fosters the adoption of the LibrarIN tools and recommendations grounded in the project research framework to push for a new generation of European libraries well-equipped to adapt to the societal challenges and changing needs of their communities.

Explore the LibrarIN Toolkit here: <https://librarin.eu/toolkit/>

3.1 The Tools

The Toolkit provides three resources, each operating in a dedicated scope, namely, policy, library, and academic levels. Table 1 outlines each of the tools and their respective scope.

Table 1 Outlines of the tools and respective scope

	Library Policy Tracker	What-Works Database	Research Knowledge Base
Scope	Policy level	Library level	Academic level
Content	Monitors the extent to which national policies align with EU-level recommendations in the LibrarIN research areas	Collects experiences, cases, and good practices that have fostered value co-creation and social innovation in libraries	Repository of papers, studies, and reports on value co-creation and social innovation areas

3.1.1 Library Policy Tracker

The **Library Policy Tracker** systematically assesses the extent to which European Union-level recommendations have been adopted in the national legislation, policies, and strategies of Member States. Focusing specifically on provisions that support or foster the co-creation of value in libraries, the tracker converts these recommendations into an operational checklist of binary (Yes/No) indicators.

The primary reference for the initial set of indicators is the Council of Europe's Recommendation on library legislation and policy in Europe [3]. This document updates the 2000 Council of Europe/EBLIDA Guidelines on Library Legislation and Policy and includes relevant Council of Europe conventions, international legal instruments, and professional standards. It also reaffirms the role of libraries in advancing the United Nations 2030 Agenda for Sustainable Development. Complementary references used are the IFLA-UNESCO Public Library Manifesto 2022 [10, 11] and the New European Bauhaus initiative [12], both aligned with the social innovation and co-creation goals of LibrarIN.

The tracker is designed as a matrix-style dashboard, with EU Member States represented on the horizontal axis, and indicators grouped in five dimensions on the vertical axis:

- (a) Participatory management and sustainable growth
- (b) Innovation and Artificial Intelligence (AI)
- (c) Social innovation
- (d) Living labs
- (e) Metrics and monitoring

These domains are aligned with the project research framework, policy briefs, and recommendations and allow the tools to interconnect the policy tracker for national alignment with the European policy debate with LibrarIN evidence-based policy recommendations and real-world examples of social innovation in European libraries (Fig. 1).

The matrix uses a colour code for each indicator:

- Green confirms that the EU Member State has a national policy, strategy, or guideline on the topic of the indicator, as recommended on the EU level
- Red indicates their absence
- Blue shows no data have been found

This visual matrix allows for cross-country benchmarking on the adoption of EU-level recommendations in national policies and guidelines and highlights cross-cutting gaps to be considered.

Each bullet is interactive, linking to a country-specific page that presents the indicator statement, the Yes/No/No-data response, supporting documentation for positive responses, and any additional contextual information. These detailed pages serve both as documentation tools and as resources for policymakers and practitioners (Fig. 2).

Legend

YES, the country has a national policy, strategy or guidelines on this topic.
 NO, no national policy, strategy or guidelines on this topic has been found.
 Data not available yet.

LIBRARY POLICY TRACKER		AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK	
Participatory management and sustainable growth																													
Integration of libraries into national SDG frameworks																													
Libraries as guardians of freedom of expression																													
Libraries as places for dialog																													
Promoting lifelong learning in libraries																													
Resources to ensure adequate training of staff and users																													
Safe and inclusive places for all kinds of minorities																													
Digital innovation and AI																													
Digital skill and literacy development																													
Integration of libraries in national AI strategy with ethical framework																													
Libraries included in the national digital transformation strategy																													
Promotion of ethical use of AI in libraries																													
Social innovation																													
Collaboration among libraries and archives																													
Collaboration with artistic, cultural and educational institutions																													
Cooperation with Non-Governmental Organizations - NGOs																													
Coordination with community development plans																													
Living labs																													
Co-creation support																													
Community engagement for democratic participation																													
Inclusive library solutions																													
Resources to ensure innovation experiments																													
Metrics and monitoring																													
Guidelines for performance measurement																													
Impact assessment studies																													
Reuse of information for policy and decision making																													

Fig. 1 Screenshot of the Library Policy Tracker with initial data

In addition to evidence sources, they include real-life examples drawn from the project’s **What-Works Database**, along with tailored policy recommendations derived from the project’s **policy briefs**. This layered structure supports comparative analysis, mutual learning, and policy transfer.

Discover the Library Policy Tracker: <https://librarian.eu/toolkit/library-policy-tracker/>

3.1.2 What-Works Database

The **What-Works Database** is designed to inspire innovators in libraries by showcasing experiences and proven practices of value co-creation and social innovation from European libraries. It invites library professionals and innovators to explore a

Filter by

Digital innovation and AI

AT BL BG CY CZ DE **DK** EE EL ES FI FR HR HU IE IT LT LU LV MT NL PL PT RO SE SI SK

- > Digital skill and literacy development
- > Integration of libraries in national AI strategy with ethical framework
- > Libraries included in the national digital transformation strategy
- ∨ Promotion of ethical use of AI in libraries

Statement:

The national AI policy framework incorporates libraries as **key actors in promoting ethical use of AI**, including provisions for the exchange of best practices and user education.

Answer: Yes

Evidence:
[The Danish National Strategy for Artificial Intelligence](#)

Comments / Additional information:
 Denmark has established ethical principles for AI development and use, which include ensuring transparency, accountability, and fairness. These principles guide libraries in implementing AI responsibly. Additional link to ethical supervision: <https://investindk.com/insights/denmark-decides-on-ethical-principles-for-ai>. Also the Danish government AI strategy report 2019 to the EU Commission: https://ai-watch.ec.europa.eu/countries/denmark/denmark-ai-strategy-report_en

Fig. 2 Detailed page for Denmark for the Digital Innovation and AI dimension

curated collection of initiatives, offering practical methodologies and solutions successfully applied by peers in diverse institutions and national settings (Fig. 3).

The What-Works Database platform features a user-friendly browsing page that is equipped with several filtering options. Users can search by theme (aligned with the dimensions of the Library Policy Tracker), country, type of library, year of launch, and stage of the initiative. An interactive map enables geographic searches, while a free-text search field supports targeted queries.

Search results are presented as a collection of interactive cards. Each initiative is presented as a clickable card displaying the title, subtitle, brief description, library type, and associated tags. Selecting a card opens a dedicated page that provides in-depth information about the initiative, including its summary, stakeholders and beneficiaries, co-creation process, results and outcomes, challenges and bottlenecks, success factors, lessons learned, contributor details, and references. Each entry also has an open comment field, designed as a contact point for questions, guidance, and references for the LibrarIN community.

As the name of the tool implies, initiatives included in the What-Works Database are initiatives that proved successful in a specific library setting at a specific moment in time. To emphasise this, the original title of each of the cases included has

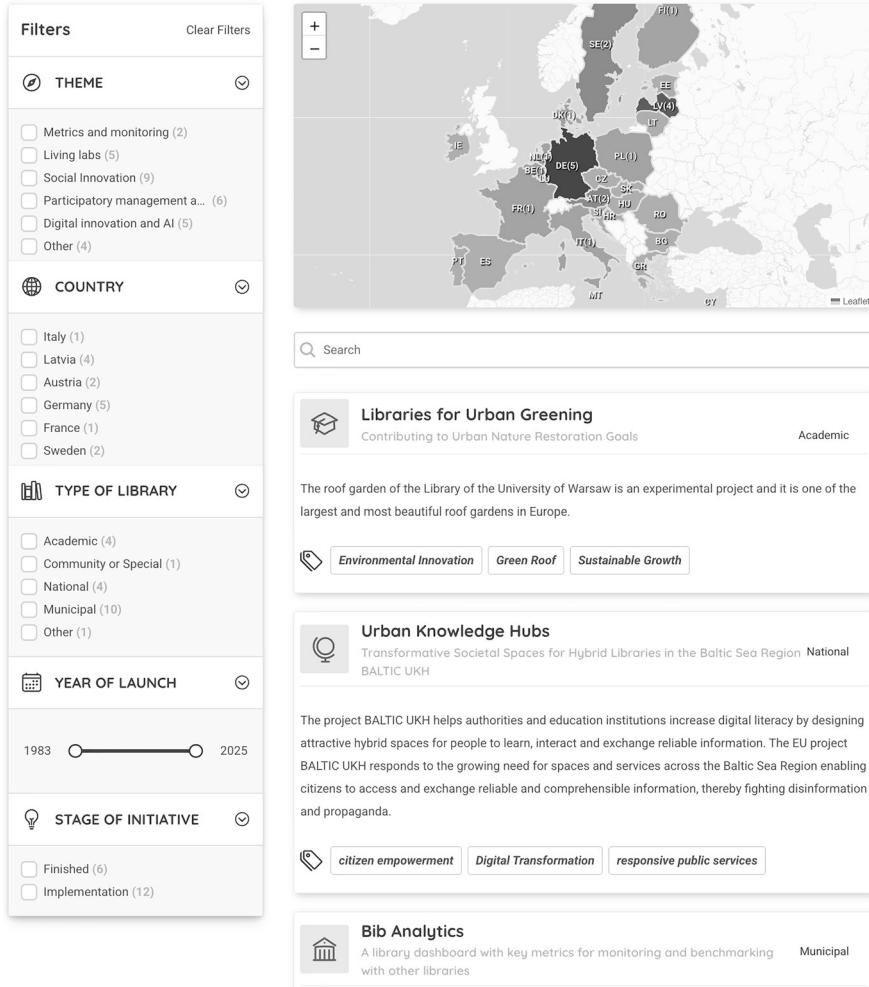


Fig. 3 Screenshot of the What-Works Database main page

remained unchanged while offering a short descriptive text to convey the essence of the initiative, highlighting what worked well.

Navigate the What-Works Database here: <https://librarin.eu/toolkit/what-works-db/>

3.1.3 Research Knowledge Base

The **Research Knowledge Base** is a curated repository of research articles and publications used in the literature reviews conducted in the project, covering the conceptual and theoretical roots of the LibrarIN research framework. Research articles cover topics such as digital transformation, living labs, co-creation, service

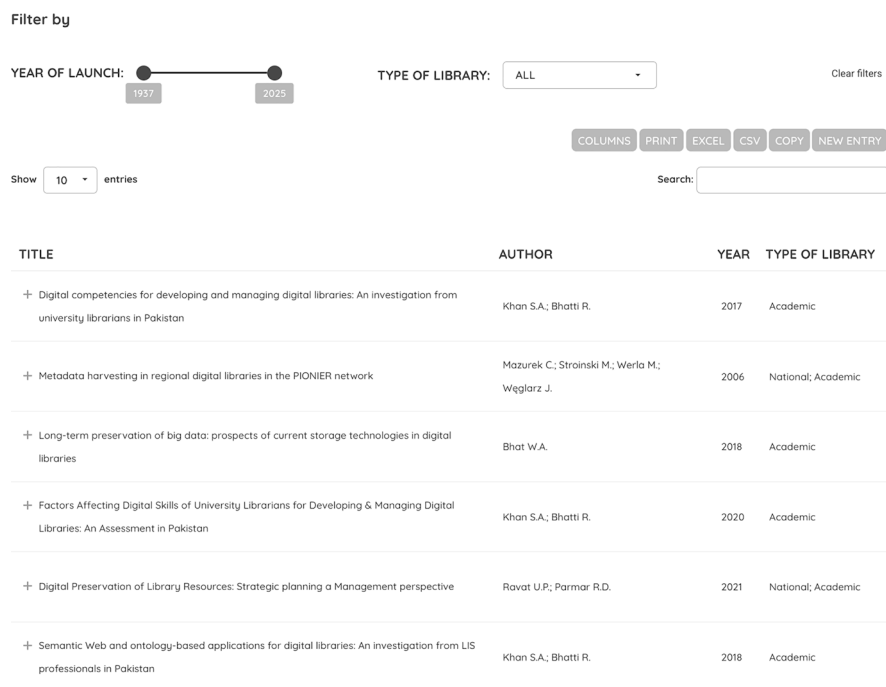


Fig. 4 Screenshot of the Research Knowledge Base

design, and innovation in library contexts. With over 5000 publications from prominent journals and publishers, the database serves as a valuable resource for researchers, policymakers, and library staff who aim to dive deeper into the evolving field of social innovation in libraries (Fig. 4).

The database allows users to filter entries by type of library, year of launch or through free-text searches. Each entry includes the title of the publication, author(s), year of publication, type of library involved, keywords, and abstract. The list of entries can be easily copied, printed, or exported for further analysis or dissemination.

3.2 *The Co-creation Process of the Toolkit*

Consistent with the co-creation focus of the project, the Toolkit has been designed and populated collaboratively to ensure its future uptake. The process involved project partners, members of the LibrarIN Stakeholders Panel, and a third group of library innovators from the wider network. The LibrarIN Stakeholder Panel comprises a diverse group of 36 experts from 19 European countries with representatives from national, academic, municipal, and community libraries alongside policymakers, international Library organisations, academia, and civil society, each with their extensive, valuable networks.

The design process of the Library Policy Tracker adopts the four-phased approach for effective collaboration in libraries outlined in the LibrarIN policy brief “*Boosting and Evaluating Collaborative Innovations in Libraries: Managerial Guidelines and Policy Implications*”. Based on the LibrarIN research framework, this document provides a step-by-step guide for libraries implementing collaborative innovation, emphasising the importance of engaging a broad range of stakeholders, including end-users, other libraries, and organisations (Fig. 5).

3.2.1 Context Analysis

The initial research phase started with a mapping of supranational (international and EU) policies, guiding principles and standards, as well as policies and guidelines by international and EU library associations and civil society organisations. This analysis of the EU policy landscape served to identify key reference points for the initial selection of indicators. Concurrently, project partners engaged in discussions on methodological decisions, considering the project design and research framework. These decisions included the use of binary (Y/N) answers for indicators,

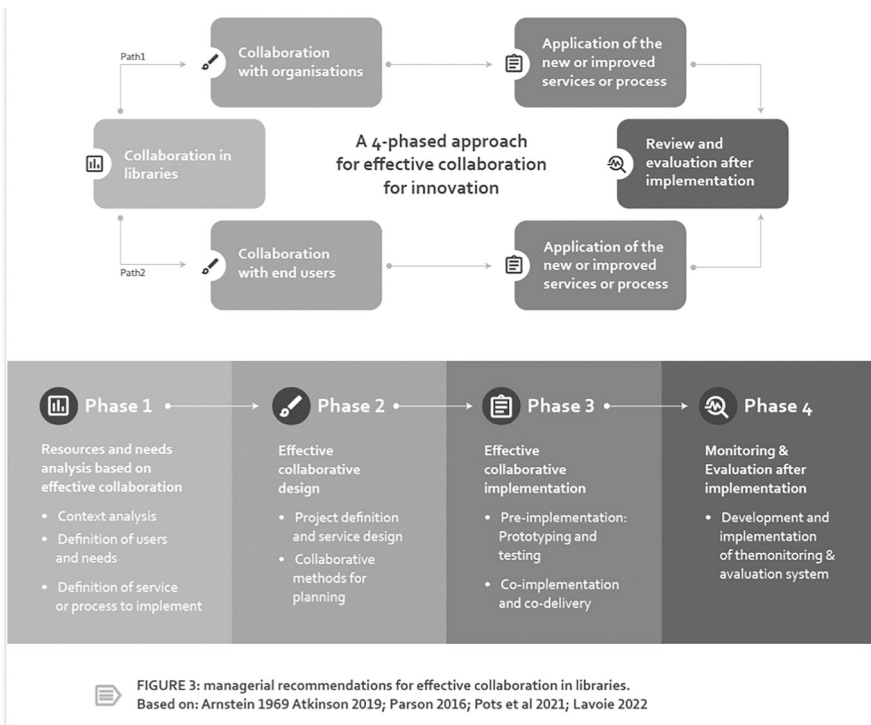


Fig. 5 Four-phased approach for collaboration in libraries described in the upcoming LibrarIN policy brief #2

establishing the analytical scope at the national level and focusing on monitoring the adoption of EU-level policy recommendations in Member States’ national policies, leaving specific implementation and local impact to the What-Works Database.

With the context and reference points established, a preliminary list of 19 indicators was developed, focusing on recommendations with direct implications in terms of policy innovation and alignment with the scope of the project. These indicators were clustered into five dimensions, reflecting the LibrarIN conceptual framework and research areas.

3.2.2 Collaborative Design

A co-creation session with stakeholders was held to refine the Library Policy Tracker. Participants engaged in discussions to improve and validate the preliminary list of dimensions and indicators and suggested potential uses of the tool. Their feedback informed the refined list of indicators and helped shape the dashboard. To ensure informed discussions, participants received pre-readings describing the purpose of the Toolkit, the policy tracker, methodological choices, and the preliminary list of indicators. Several techniques were used to encourage participant engagement and participation such as an icebreaker, facilitated breakout rooms, collaborative online boards, and note-taking to collect inputs for further refinement (Fig. 6).

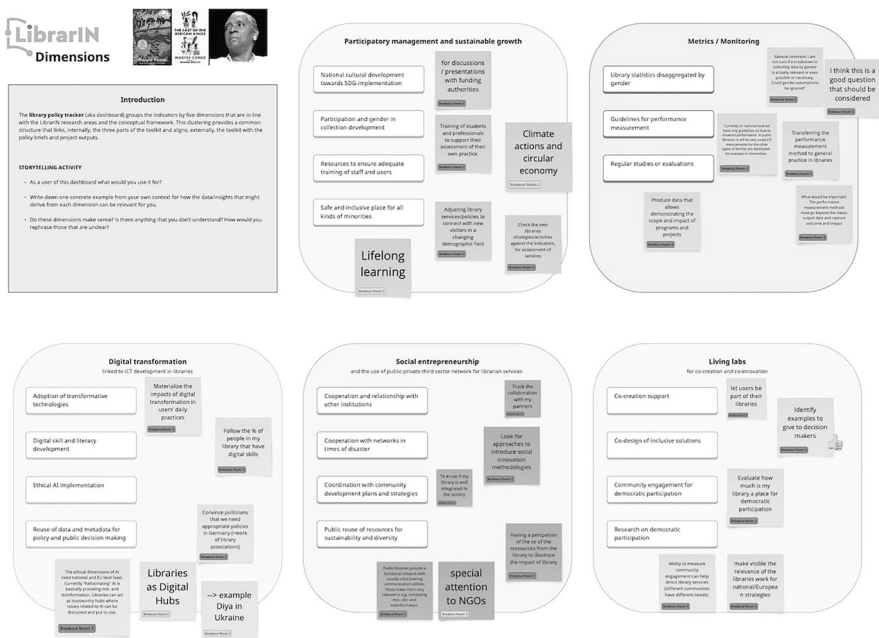


Fig. 6 Online board used during the co-creation session

The integration of feedback from the co-creation session was guided by the relevance of the proposed indicators to potential users. If an indicator lacked meaningful value to the intended audience, retaining it served little purpose and could detract from the effectiveness of the dashboard. Prioritising indicators according to user needs and project goals ensured that the tool remained practical and relevant. Following this approach, four indicators were removed, three were added to the list, and several were rephrased. The refined list of indicators consisted of 18 indicators grouped by the original five dimensions, which remained unchanged.

In the validation phase of the design process, diverse policymakers were consulted to assess the usefulness and relevance of the proposed indicators in supporting their work. Each indicator was evaluated using a four-point scale (Not at all, Slightly, Moderately, and Very well), with an open field for additional comments and suggestions. This feedback led to several adjustments: the addition of two new indicators, the division of one existing indicator, and textual refinements. The final list comprises 21 indicators grouped into five dimensions (Appendix).

3.2.3 Collaborative Data Collection

Accurate and comprehensive data collection from all EU Member States for the Library Policy Tracker requires active collaboration between LibrarIN consortium members, the project stakeholder panel, and country experts from the wider network. Data gathering starts with desk research conducted by partners and stakeholders, who evaluate each indicator for their country by providing a “Yes” or “No” response, a link to supporting evidence for affirmative answers, and any additional comments or clarifications where needed. Following data collection, country experts are contacted to review and validate data for their country. This validation adds an additional layer to ensure the accuracy and reliability of collected data.

This collaborative approach extends to the other tools of the Toolkit. The What-Works Database incorporates multiple experiences and initiatives contributed by both partners and Stakeholder Panel members, while remaining open to external contributions. Similarly, the Research Knowledge Base enables external users to propose new entries through a dedicated submission form.

4 The LibrarIN Toolkit for AI Implementation in Libraries

4.1 Benchmarking AI Policies Across Europe

Innovators in libraries looking to address societal challenges or adapt to changing needs of their communities and adopt Artificial Intelligence (AI) in their library services and operations will need to understand the policy landscape they are operating in. The Library Policy Tracker allows them to identify European and national

policies and strategies advancing AI for library innovation. In particular, it provides an overview of how EU policies are adopted and evaluated in EU Member States, in addition to evidence of national-level strategies and policies addressing Digital Innovation and AI for libraries.

At the moment of writing, the Library policy tracker contains data on seven EU Member States, namely, Austria (AT), Germany (DE), Denmark (DK), Greece (EL), Spain (ES), France (FR), and Romania (RO) (Fig. 7).

When looking to implement AI in library services and operations, the policy tracker shows the adoption of EU-level recommendations on national level, by providing evidence of existing policies on the topics of (a) digital skill and literacy development, (b) integration of libraries in national AI strategy with ethical framework, (c) libraries included in the national digital transformation strategy, and (d) promotion of ethical use of AI in libraries.

4.1.1 Digital Skill and Literacy Development

When looking at promoting the implementation of effective and tailored media, information and digital literacy programmes for library staff and users in libraries, five out of the seven EU Member State countries currently providing data have national plans or strategies that encourage this.

It is worth highlighting a few country-specific comments on digital skill and literacy development:

- In Spain, although libraries are not specifically mentioned in the National Plan for Digital Skills [12], the IV Strategic Plan of the Library Cooperation Council (CCB) emphasises the importance of “strengthening media and information literacy”. This plan highlights the role of libraries as centres of knowledge and learning and includes specific proposals for implementing media and information literacy programmes.

Legend

YES, the country has a national policy, strategy or guidelines on this topic.
 NO, no national policy, strategy or guidelines on this topic has been found.
 Data not available yet.



Fig. 7 Screenshot of the Library Policy Tracker with initial data on Digital Innovation and AI from Austria (AT), Germany (DE), Denmark (DK), Greece (EL), Spain (ES), France (FR), and Romania (RO)

- Denmark is the EU's Digital Champion in New Survey [13]. Every year, the European Commission releases the Digital Economy and Society Index (DESI), which measures the level of digitalisation in European Union member states according to four benchmark categories. The four benchmark categories comprise indicators within human capital, connectivity, integration of digital technology, and digital public services, all of which give an overview of EU efforts in digitalisation.
- The “Digital Transformation Bible 2020–2025” [14] sets out the new national strategy for digital transformation. However, there isn't a specific national strategy exclusively dedicated to implementing tailored media, information, and digital literacy programmes for library staff and users.
- The French national strategy to reinforce digital literacy is quite broad, yet libraries are part of this strategy [15, 16].
- In Germany there is no coherent or unique strategy, instead there are several individual initiatives.

4.1.2 Integration of Libraries in National AI Strategy with Ethical Framework

When looking at whether the national AI implementation strategy includes libraries and ensures the enforcement of privacy and equity principles, all of the seven EU Member State countries currently providing data have a national AI strategy, but none of them include libraries.

Important to note is that the French National Library defined and published an AI roadmap [17], but in the French national strategy, libraries aren't at the core of the strategy. And Germany has a national AI strategy, but libraries are not explicitly named in it. However, privacy and equity are core principles of Germany's AI policy. Libraries are also bound by strong data protection and privacy laws (GDPR) and will have to comply with the upcoming EU AI Act.

4.1.3 Libraries Included in the National Digital Transformation Strategy

When looking at provisions to scale up library practices from analogue to digital, five out of the seven EU Member State countries currently providing data have national digital transformation plans that include this.

It is worth highlighting a few country-specific comments on libraries included in the national digital transformation strategy:

- Greece has a national digital transformation plan that includes provisions to scale up library practices from analogue to digital, as outlined in the Digital Transformation Bible 2020–2025.
- The National Digitalisation Strategy 2022–2026 [18] in Spain has been developed by the strategic working group of the Consejo de Cooperación Bibliotecaria

and outlines guidelines for digitising and disseminating bibliographic heritage across various administrations and institutions, including libraries.

- The digital transformation plan related to AI and libraries is hosted by the French National Library [17].
- In Romania, libraries are an important part of digitisation and preserving national cultural and historic heritage and promote this through digital services [19].

4.1.4 Promotion of Ethical Use of AI in Libraries

Out of the seven EU Member States countries currently with data in the policy tracker, only Denmark has a national AI policy framework that incorporates libraries as key actors in promoting ethical use of AI, including provisions for the exchange of best practices and user education. Denmark has established ethical principles for AI development and use, which include ensuring transparency, accountability, and fairness [20]. These principles guide libraries in implementing AI responsibly [21].

It is worth highlighting a few country-specific comments on the absence of promotion of ethical use of AI in libraries in national policies:

- In Austria it is the single libraries, such as the Austrian National Library, which have an AI policy covering the responsible use of AI [22].
- Germany has a national AI policy framework, but libraries are not explicitly named as key actors in it. However, the German Library Association (DBV) identifies AI as a transformative technology for libraries.
- In Spain, the AI Strategy 2024 [23] establishes the Spanish Agency for the Supervision of Artificial Intelligence (AESIA) to ensure the deployment of safe, responsible, and ethical AI systems nationwide. This includes the creation of knowledge, training, and dissemination of ethical AI practices. However, libraries are not specifically mentioned.
- In France, the France 2030 national plan or in the AI national strategy, focus lies more on startups or research than on libraries. Best practices or user education was already part of the missions of libraries. In addition, institutions like the Liaison Centre for Education and Media Information (CLEMI) train people, including children, on AI questions [24].
- In Romania, the National Strategy regarding AI [25], there is no specific mention of ethical use of AI in libraries.

4.1.5 Cross-Country and Cross-Domain Benchmarking

If we compare the country scores on the adoption of EU-level recommendations on Digital Innovation and AI, there is still room for improvement in each of the seven countries currently with data in the Library Policy Tracker, with Denmark scoring

three out of four indicators, and Austria adopting none of the EU-level recommendations.

A comparison of domains shows that Digital Innovation and AI have the lowest adoption rate, with only 40% of EU-level recommendations implemented at the national level. In contrast, Social Innovation shows a significantly higher alignment, with 86% of EU recommendations adopted nationally.

Innovators in libraries, both practitioners and policymakers, can adopt and implement the LibrarIN policy recommendations related to the indicators to adapt to the changing needs of their communities and societal challenges. Furthermore, they can source inspiration from the cases related to AI and Digital Innovation directly suggested by the What Works Database (WWD) and adapt it to their specific context.

4.2 *What Works? Start Implementing AI in Your Library*

The What-Works Database serves as a valuable comparative tool for libraries aiming to adapt to the changing needs of their communities and adopt AI in their services and operations. The taxonomy used in the What-Works Database allows for targeted searches by country, theme, type of library, theme (e.g. Digital Innovation and AI), year of launch of the social innovation initiative, and its current stage.

When looking for inspiration and examples of libraries implementing AI in their services and operations through effective collaboration with their community, the What-Works Database shows six real-life cases at the time of writing. The search indicates cases from municipal and national libraries, from Germany, Latvia, the Netherlands, and Sweden, and two out of six cases have reached their finalisation stage. The structured fields in the individual case pages (such as summary of the case, problem addressed, solution adopted, implementation steps, outcomes, beneficiaries, stakeholders, and challenges) enable library staff to analyse diverse AI initiatives using specific criteria. By examining summaries that highlight key successes and rationales, libraries can understand the motivations behind AI adoption in other libraries and learn what worked well in similar initiatives across different contexts.

Worth highlighting are the following specific fields:

- **Problems addressed and solutions adopted** are particularly useful in identifying recurrent issues and how AI has been leveraged to meet these needs, such as the need for better information retrieval, personalisation of services, or automation of routine tasks.
- The **implementation steps** provide a blueprint for inspiration or replication if possible, offering a chronological view of how other libraries transitioned from concept to execution. Milestones and achievements, when listed, help libraries understand what is realistically feasible at various stages of AI integration.
- The fields detailing **stakeholders and beneficiaries** shed light on the ecosystems involved. Understanding who benefits (be it patrons, researchers, or underserved communities) and who the key actors are (such as librarians, IT

professionals, or external partners) provides useful input for project planning and stakeholder alignment.

- The **co-creation process** field adds further value by illustrating participatory approaches, which can inform more inclusive and sustainable AI implementations.
- The fields on **challenges and bottlenecks** and **outcomes and impacts** help libraries anticipate potential obstacles, such as funding issues or resistance to change, and draw inspiration from how these challenges were addressed or mitigated within other library contexts.

The What-Works Database fields provide structured and comparable information, forming a practical knowledge base that not only showcases innovation but also guides strategic thinking and evidence-based implementation of AI in libraries. As more and more cases are being crowdsourced and uploaded to the What-Works Database, the “AI Parade” [26] case showcases an example of how the information provided can be useful to other libraries as an inspiration for developing AI initiatives (Fig. 8).

The AI Parade case from the KB National Library of the Netherlands in cooperation with the “Dutch AI Coalition” 21 municipal libraries is a travelling exhibition and series of events for municipal libraries with ever-changing activities to introduce the public to the possibilities of AI and to engage in a conversation about it together. The case offers several instructive lessons on the implementation of AI-focused programming within the public library sector to engage the public, raise

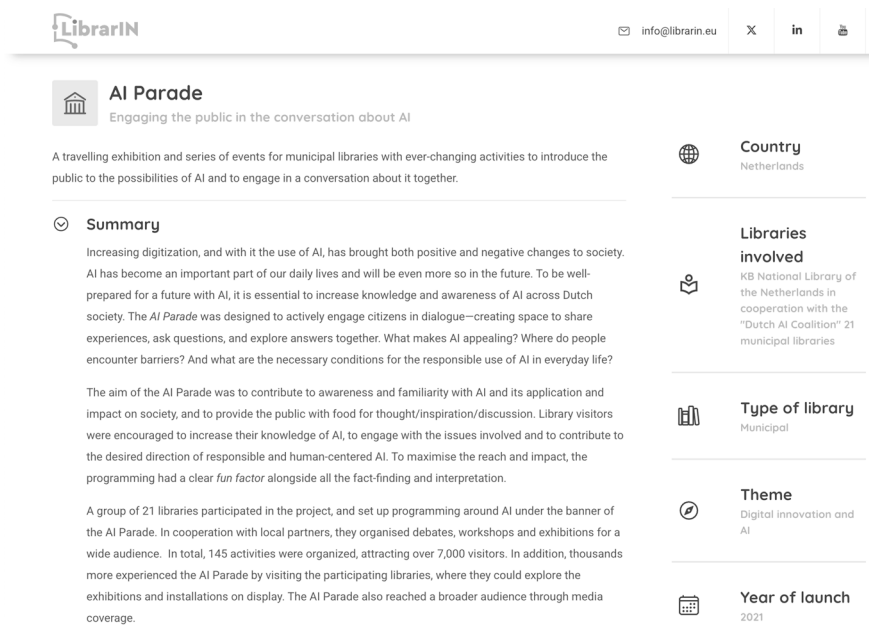


Fig. 8 Screenshot of the What-Works Database with data from the AI Parade case

awareness, and promote responsible AI use. One of the principal lessons emerging from this case shares insights into the necessity of planning adequate preparatory time for such ambitious projects. The originally planned 1-month preparation period proved insufficient for all participating partners; a timeline of at least 6 months was identified as essential for effective planning, stakeholder coordination, and community outreach. Furthermore, the initiative underlined the value of flexible and scalable programme design. The exhibition's initial touring model encountered practical limitations due to the size and transport requirements of physical installations. These challenges were successfully mitigated through the development of modular digital components and the adoption of more adaptable scheduling approaches, allowing libraries to tailor activities to local needs and capacities. The AI Parade also demonstrated the effectiveness of a co-creative and decentralised approach, where libraries operated as both hosts and curators of locally relevant programming within a nationally coordinated structure. This model facilitated meaningful community engagement and addressed the needed contextualisation of AI themes in accordance with local interests and concerns. Importantly, the positive impact of the initiative was significantly strengthened by the prominent societal discourse surrounding AI during the implementation period. The widespread public attention obtained by high-profile generative AI applications—such as ChatGPT and DALL·E—created a favourable cultural climate in which interest in AI-related issues surged. This broader media and societal engagement acted as a catalyst, drawing increased public interest to the library events and amplifying their reach. As a result, the AI Parade initiative was able to capitalise on this momentum, positioning libraries as timely and relevant spaces for informed discussion on the ethical, social, and practical dimensions of AI.

4.3 Your Evidence-Based Knowledge

For those wanting to dive deeper into the research literature used in the LibrarIN research frameworks, there is a wealth of information freely accessible via the LibrarIN knowledge repository. It is the corpus of evidence on which the research of LibrarIN is based.

The curated repository shows the academic literature that mapped and formed the basis of the LibrarIN conceptual and measuring framework as well as the theoretical and empirical research conducted. Grounded in this solid research framework, LibrarIN provides a set of actionable recommendations for innovators in libraries, both practitioners and policymakers. At the moment of writing, the first policy brief has been published titled *Reimagine Libraries: Sparking Collaboration for Innovation to Tackle Libraries' 21st Century Challenges* [6] and validated through an open discussion with library policymakers and practitioners. And other policy briefs with recommendations on each of the research areas, and aligned with the policy tracker domains, are planned for the final stage of the LibrarIN project.

5 Lessons Learned, Conclusions, and Future Outlook

“What the LibrarIN project seeks to aggregate is particularly important, precisely because of our desire, as libraries and librarians alike, to know how they are evaluated in the EU Member States, and not only, how libraries could provide new services and what are the optimal directions for this. Being currently president of the National Library Commission and having to report on the state of libraries, filling in the data in the form was revealing for me, from the point of view of the national policies that need to be addressed, in a first phase.” (said by one of the library country experts)

5.1 *Lessons Learned*

The development and early implementation of the LibrarIN Toolkit confirms that innovation in libraries thrives when built in close collaboration with communities, evidence-based, and fully aware of societal challenges and the current policy debate.

The following lessons learned can be identified:

- **Co-creation fosters relevance and future adoption of the Toolkit:** Involving a diverse group of stakeholders ensures the LibrarIN Toolkit reflects the real needs and goals of the library ecosystem across Europe. This participatory process significantly improves both the usability and uptake of the tools.
- **Tailored innovation is more effective than one-size-fits-all:** The What-Works Database highlights the importance of context-specific and community-based approaches and allows for adaptation to local contexts.
- **Transparency and benchmarking drive policy change:** The Library Policy Tracker encourages national-level reflection and fosters constructive comparison among EU Member States. This approach aims to motivate policy reform and alignment with EU-level recommendations.
- **Evidence-based advocacy:** The curated knowledge base and policy briefs not only inform innovation efforts but also strengthen the advocacy capabilities of libraries, equipping them with data and narratives that resonate with funders and decision-makers.

5.2 *Conclusions*

The LibrarIN Toolkit has demonstrated the power of structured, collaborative innovation in strengthening the role of libraries as vibrant, cohesive, and forward-looking institutions. Through its three complementary tools, it connects research,

policy, and practice. By aligning with the current library policy debate and EU priorities such as the Green Deal and digital transformation, as well as the United Nations Sustainable Development Goals, the Toolkit anchors libraries in broader societal goals, enabling them to strengthen their role as key pillars of vibrant democracies and social cohesion.

In the joint policy brief *Collaborative Innovation and Best Practice Diffusion in European Libraries: Adapting for Local Impact*, TELL and LibrarIN projects address the challenge of effectively sharing groundbreaking best practices across diverse European library systems. They argue that collaboration with the community and smart tools such as the LibrarIN Toolkit can help libraries transform into vital community hubs. The brief concludes with actionable policy recommendations to ensure the effective spread of inspiring and adaptable examples for library innovation across Europe.

5.3 *Future Outlook and Topics for Research*

For library innovators, both policymakers and practitioners, there is a clear need for a coordinated European effort to bring together the currently fragmented landscape of smart library tools. Such coordination would support libraries in their transformation into vibrant community hubs, helping them to better respond to societal challenges and the evolving needs of their communities. For policymakers, this represents a strategic opportunity to increase the social impact of libraries, ensure a more effective use of innovation investments, and foster cross-border knowledge sharing and capacity building across Europe.

In the remaining months of the LibrarIN project, several steps are planned:

- **Expansion of the policy tracker dataset:** New country-level data will enrich the initial dataset of the Library Policy Tracker, covering all EU Member States, enabling more comprehensive benchmarking.
- **Upcoming evidence-based policy briefs:** Upcoming policy briefs will cover topics such as AI, social entrepreneurship, living labs, and the LibrarIN metrics framework for effective collaboration. Each of the briefs will offer actionable recommendations and will be discussed at policy roundtables with library policymakers and practitioners for further transformation.
- **Final conference and knowledge dissemination:** The Final LibrarIN Conference provided a platform to showcase the LibrarIN Toolkit, share new cases in the What-Works Database, and spark collaboration among innovators in libraries.
- **Sustainability and open contributions:** The Toolkit will remain open to new case submissions and policy data, ensuring that its relevance and impact extend beyond the life of the project. In addition, sustainability conversations are taking place with European library initiatives and associations.

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Appendix 1: List of Indicators

Below is presented the final list of indicators for the Library Policy Tracker, which are grouped by dimensions and ordered alphabetically (Table 2).

Table 2 List of indicators for the Library Policy Tracker

<i>Participatory management and sustainable growth</i>	
Integration of libraries into national SDG frameworks	Libraries or library activities are explicitly included in official national documents related to the Sustainable Development Goals (SDGs)
Libraries as guardians of freedom of expression	There is a legal requirement that identifies the role of libraries as independent meeting places that contribute to the freedom of expression and thought and provide access to a broad range of information free from censorship
Libraries as places for dialogue	There are national policies or programmes that identify and promote libraries as platforms for democratic discussion among the citizens
Promoting lifelong learning in libraries	There are national policies or programmes that support and enhance lifelong learning for library staff and users, ensuring continuous education and skill development
Resources to ensure adequate training of staff and users	There is a dedicated national budget or funding programme for the training of library staff and users to ensure that they are able to make proper use of the new tools and services now available
Safe and inclusive places for all kinds of minorities	The country provides guidelines to all libraries with minimum standards for the provision of accessible and inclusive services and promotes, wherever necessary, special programmes to combat any discriminatory practice
<i>Digital innovation and AI</i>	
Digital skill and literacy development	There is a national plan or strategy that encourages and promotes the implementation of effective and tailored media, information, and digital literacy programmes for library staff and users in libraries
Integration of libraries in national AI strategy with ethical framework	The country has a national AI implementation strategy that includes libraries and ensures the enforcement of privacy and equity principles
Libraries included in the national digital transformation strategy	The country has a national digital transformation plan including provisions to scale up library practices from analogue to digital
Promotion of ethical use of AI in libraries	The national AI policy framework incorporates libraries as key actors in promoting ethical use of AI , including provisions for the exchange of best practices and user education
<i>Social innovation</i>	
Collaboration among libraries and archives	There are regional and/or National Library and archiving systems whose members co-operate on matters of acquisition and circulation of collections
Collaboration with artistic, cultural, and educational institutions	There are regional and/or National Library environments whose members form close working relationships with other artistic, cultural, and educational institutions

(continued)

Table 2 (continued)

Cooperation with non-governmental organisations (NGOs)	There are regional and/or national networks that facilitate partnerships between libraries and NGOs , enabling collaboration on projects that address local community needs and social issues
Coordination with community development plans	The country has mechanisms in place to ensure the coordination of libraries' activities with the community development plans and strategies
<i>Living labs</i>	
Co-creation support	The country has a national plan including explicitly the use of co-creation (active user involvement) to promote innovation in library services
Community engagement for democratic participation	There is a national framework that supports libraries to provide platforms for discussion and organise public debates , engaging communities and fostering a culture of innovation and democratic participation
Inclusive library solutions	The country has established national strategies that guide libraries in designing inclusive solutions , incorporating awareness raising, media literacy, broad stakeholder involvement, and cooperation with public authorities
Resources to ensure innovation experiments	There is a dedicated national budget or funding programme for the development of innovation experiments in libraries
<i>Metrics and monitoring</i>	
Guidelines for performance measurement	The country has guidelines for quality performance measurement relating to the different types of libraries and their missions in compliance with the SDGs
Impact assessment studies	There are recent studies or evaluations within the past 5 years that analyse the social, educational, cultural, and economic impacts of different types of libraries in the country, conducted or commissioned by national bodies
Reuse of information for policy and decision-making	There is a national strategy to exercise control over data and information from library operations and to reuse these in policymaking and decision-making processes

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