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D3.9 Living labs for co-creation and co-innovation v3.0

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Disclaimer

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Executive Summary

Background

This report presents the outcome of Work Package 3, Task 3.3 of the LibrarIN project, which investigates libraries as living labs, i.e. experimental and participatory spaces for service development. The living lab approach is interesting or topical in library research as the concept captures and illustrates the increasing user-centeredness of libraries and libraries as experimental sites for library service development and community development.

This third deliverable (third release of the deliverable) provides:

1. A review of the literature on libraries as living labs, i.e., as experimental settings that apply participative methods of co-creation and co-innovation for public service and library innovation (included in deliverable 3.7).
2. Illustrations of cases selected for further study, highlighting their relevance to LibrarIN and informing the tracker and databases of WP5 (included in deliverable 3.8).
3. Final results and implications of the case studies for policy and research (included in deliverable 3.9).

Our focus is on libraries *as* living labs rather than libraries *with* living labs. This distinction is important because it is the library as a whole that in some cases transitions into a more experimental space. The deliverable explores various concepts, theories, and empirical examples of how libraries engage in experimental practices.

Purpose

The purpose of the report is to answer the following research question: ***How are innovation and participatory methods applied and understood in the context of public libraries and how does this influence opportunities and limitations relative to co-creation and co-innovation of library services and other community services?*** The literature review and case illustrations inform the third release of the report due in month 36, which will report the final results and implications of the case studies for policy and research.

Method

The first part of the report is based on a systematized literature review of scientific articles. The review strategy draws on the logic of the PRISMA model in the selection and screening of the literature.

The second and third part of the report builds on the literature review, which enabled us to formulate case selection criteria, develop a case study protocol, and select and carry out case studies. Sixteen case studies, highlighting libraries as living labs, were selected, are illustrated in this report, and a cross-case comparison of them have been carried out.

Overview of findings

The key results of the literature review are:



- The term “living lab” is not used to a great extent in the reviewed literature. However, the library is often described as an innovative and experimental setting for developing a broad range of new services. The construct of living lab is instead identified as a latent construct and theme in the literature.
- The literature discusses the purpose of the library in terms of its boundaries, legitimacy and types of libraries. Overall, we interpret this as implicit discussions of the “public value” of libraries.
- Libraries, as physical spaces, undergo a conceptual transformation that enable them to deliver three interconnected types of services: ‘space-place services,’ ‘processional learning services’ and “democratic engagement services’. As such the basis for further development of co-creation and co-innovation are highly present.
- The library is evolving from a space with distinct roles for patrons and librarians to a more dynamic and collaborative environment. This implies that librarians become library professionals and that the development of a new skills-sets is an issue.

The cross-case analysis identified different ideal types of libraries. While each library is unique and often combines different types in practice, it is still possible to distinguish ideal types that are emphasized to different degrees in the libraries. Library A is the classical library ideal type, Library B is the embedded library ideal type (hosting , and Library C is the advanced library ideal type: Library A maintains a strong commitment to traditional missions such as promoting literature, education, and civic engagement, operating primarily within politically defined frameworks and deriving legitimacy from institutional mandates. While evolving into community hubs, their innovation potential is often moderated by these political constraints. Library B, in contrast, functions as a community host, embracing open-ended and participatory approaches that deliberately blur the traditional service provider boundary. Its legitimacy is derived from its ability to adapt, listen, and co-create with local communities, rather than solely relying on political mandates. Library C moves beyond adaptation by embedding living lab principles as a core design strategy. These institutions proactively shape a novel, visionary space, deriving their legitimacy from their capacity to encourage systematic innovation, experimentation, and collaboration with academic and municipal organizations.

The cross-case analysis of the investigated European libraries and the ideal types highlights several key conclusions regarding their evolving roles, innovation approaches, and understanding of public value. These are summarized below:

1. Objective & legitimacy: Evolving purpose and democratic anchoring

- Libraries are transcending their traditional roles as mere lending centers to become multifaceted hubs for education, culture, lifelong learning, and community engagement. Some, like the C3 Library in Vienna, Austria, are hybrid institutions combining elements of public, research, and community libraries.
- A central theme is their role as democratic cornerstones, promoting free access to knowledge, information literacy, critical thinking, active citizenship, and freedom of expression. They are seen as a “bulwark against fake news” and as neutral public spaces.



- Legitimacy is derived from being inclusive and accessible to all, particularly emphasizing low-threshold access and support for diverse and marginalized groups, such as youth, immigrants, those with disabilities, and socially vulnerable.
- Some libraries, like the Dokk1 in Aarhus, Denmark, explicitly connect global challenges with local contexts, aiming to empower diverse populations to address complex societal issues.

2. Co-creation & co-innovation: User-centric and experimental approaches

- An increasing emphasis is placed on active user involvement, moving from passive consumers to co-producers/co-creators of library services. This often involves a “moderated co-creation” approach, where services are initially defined broadly by library professionals and then refined with the community.
- Common methodologies include incorporating user feedback, conducting design thinking workshops, surveys, focus groups, and drawing insights from daily interactions. Activities are often experimental due to the challenging goals. In some cases, like Dokk1 and Oodi in Helsinki, Finland citizens are encouraged to actively contribute to co-creation of services.
- Key obstacles to broader co-creation include tight funding policies focusing on measurable results, which can limit critical analysis and exploration of relevant topics. There is also a concern about selection bias, potentially engaging only those already interested.

3. Front-end employee competencies: Shifting roles and demand for soft skills

- The role of library staff is undergoing a radical change, broadening from traditional tasks like documentation and cataloguing to becoming facilitators, educators, knowledge bearers, digital facilitators, tech mentors, and networkers.
- New, crucial competencies include digital proficiency, relational skills (e.g., active listening), emotional intelligence, problem-solving, flexibility, and adaptability. Many libraries also emphasize the importance of multidisciplinary teams to tackle complex issues.
- This shift often leads to internal conflicts over professional identity and challenges in acquiring necessary new skills, sometimes due to a lack of specialized staff or adequate training.

4. User/citizen role: From recipients to empowered contributors

- Citizens are increasingly viewed as active participants and co-creators in the development and delivery of library services. Their input directly informs innovation processes.
- Libraries aim to engage diverse user groups, including youth (a challenging age group to reach, often dropping off from library around age 14), marginalized populations, and multilingual families.
- The goal is to empower users for informed decision-making and to take initiative within the library space. However, reaching non-users and ensuring truly diverse participation remains an ongoing challenge.

5. Other stakeholders: Expanding networks for enhanced value

- Libraries widely engage in collaborations with diverse external stakeholders, including carrier organizations, federal agencies, universities, NGOs, schools, local companies, cultural institutions, foundations, and professional associations.



- These partnerships are crucial for mobilizing resources, sharing expertise, and extending the library's reach and impact beyond its immediate premises.
- Collaborations are often based on shared objectives and strategic alignment, contributing to the library's overall public value goals.

6. Innovation intermediary/network enabler: Fostering connections and learning communities

- Many libraries see themselves as innovation intermediaries and network enablers, facilitating connections among citizens, creators, and various organizations.
- They act as knowledge hubs for interdisciplinary collaboration and as platforms for democratic participation.
- Providing physical and virtual spaces for encounters is key to fostering learning communities and social relations. Network formation is often driven by thematic projects, leveraging "strength of weak ties". Some initiatives specifically aim for scalability across a wider network of libraries.

7. Public value understanding: Multifaceted, intangible, and often contested

- Public value is consistently defined with a dual focus: the individual benefit and the common good. It encompasses a wide array of benefits beyond traditional library services, including education, culture, dialogue, social cohesion, critical thinking, democracy, personal development, well-being, and addressing social issues like inequality and loneliness.
- The physical space of the library is emphasized as a core value proposition, providing a low-threshold, open, safe, and welcoming environment for various activities and interactions.
- There can be inherent tensions or paradoxes in defining public value, particularly between political/efficiency mandates (e.g., emphasizing quantitative measures) and the more intangible social or relational values. Many acknowledge that some of the most profound impacts, such as strengthening democracy or fostering social cohesion, are difficult to quantify which is why the broader societal value of libraries is not measured and remains partially invisible.

8. Success criteria: Balancing quantitative metrics with qualitative insights

- Libraries typically track quantitative measures such as visitor numbers, participation in events, new library cards, and book loans/consultations to assess success.
- There is a growing recognition and implementation of qualitative feedback mechanisms, including in-depth interviews, focus groups, and analysis of daily interactions, to understand service quality, user satisfaction, and the deeper impacts of co-creation.
- A significant challenge remains in measuring long-term impact and the more intangible, societal, relational, or democratic outcomes of co-creation initiatives. Some cases explicitly note the need to move beyond "one-shot projects" and develop adaptable metrics for scalability.
- The ability to demonstrate success, both quantitatively and qualitatively, is crucial for justifying public and private funding and proving the library's continued relevance.

Recommendations

The review suggests that there is a need to better understand the following four issues through case studies: 1) *the role of the public library* in terms of what public value it claims to create; 2) *competencies*



in terms of how skills are changed/enhanced on the part of library professionals and users; 3) *innovation* in terms of what forms of innovation processes are important and the extent to which they are participatory or not; and 4) *co-creation* in terms of whether and how public libraries are becoming oriented towards co-creating value of/with users.

Findings from the detailed examination of how new library formats and practices are formed and implemented in libraries and how they enable public value creation suggest the following recommendation for practitioners, policy-makers and for future research:

Enable a hybrid approach to innovation (top-down & bottom-up):

Policy should recognize that successful co-creation often blends strategic, top-down mandates with organic, bottom-up community initiatives, and encourage frameworks where municipal priorities are combined with mechanisms for citizen input to ensure that local creativity complements broader societal objectives. Libraries can be mandated by municipalities to address societal issues (e.g., Dokk1), while also thriving when mobilized by volunteer networks, activist groups, or user-led initiatives (e.g., Rentemestervej, Sparta). As a managerial implication, libraries might consider setting up flexible governance and organisational structures that allow both strategic goals and community-driven ideas to coexist. Management should be a balancing act between supporting employee initiatives and providing strategic direction.

Research should explore how to design institutional frameworks that encourage both structured innovation processes and spontaneous, emergent forms of co-creation, creating an environment where citizen initiatives are not just accommodated but actively nurtured and integrated into service development.

Strengthen multifaceted connectivity among all stakeholders:

Connectivity between users, library employees, library managers, partners, library networks, and policymakers is crucial and manifests in diverse ways. Libraries could explore practices that sustain interaction across user communities, staff, and partners, for example through regular co-creation workshops or digital platforms for idea exchange. Assigning roles dedicated to partnership development may further enhance this connectivity.

At the municipal or national level, policymakers should actively invest in the relational and technological infrastructure that enables interaction and knowledge exchange across these diverse levels and sectors. This includes supporting formal partnerships with public institutions, private companies, and civil society organizations, as well as creating informal networks among citizens and staff. Additionally, policies might promote participation in innovation networks and knowledge-sharing platforms, creating conditions for scaling successful local practices and ensuring that marginalized groups are not excluded.

Research could explore how libraries can enhance their role as innovation intermediaries and network enablers, leveraging formal partnerships casual encounters to build robust learning communities and



enable social cohesion. This also involves developing strategies for scaling successful models and ensuring that stakeholders, including marginalized groups, have opportunities to connect and contribute.

Address resource constraints and manage inherent conflicts:

Resource constraints: Policymakers must provide stable and sufficient funding to overcome challenges such as tight funding policies focusing solely on measurable results, which can limit critical analysis and exploration of relevant topics. Adequate resources are needed for specialized staff, continuous professional development, and the time required for relational engagement with patrons and partners. Many library services are developed and funded by external projects. When these projects end, libraries should be able to accumulate and leverage the knowledge developed, as well as develop durable expertise and services. Libraries and library management should develop transparent procedures for addressing the challenges of losing project workers who have all the expertise and contacts, as well as the challenges of users becoming dependent on project-funded services and support.

Inherent conflicts: Politicians need to acknowledge and help manage conflicts arising from diverse user needs, political sensitivities, and evolving professional identities. This includes navigating tensions between serving individual preferences (e.g., quiet study spaces) and the common good (e.g., vibrant activity hubs). Libraries face challenges in maintaining institutional neutrality while accommodating diverse and sometimes controversial voices (e.g., Frederiksberg's drag show debate). As an implication, libraries could develop clear decision-making protocols for balancing competing user needs or introducing structured dialogue formats might help manage tensions and maintain neutrality. Additionally, policy should support libraries in ensuring inclusivity without disproportionately benefiting affluent or vocal groups for example by outlining principles for inclusive service design and conflict mediation, for instance by recommending stakeholder engagement processes that consider diverse voices without privileging dominant groups.

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List of Terms and Abbreviations

List of terms

The theoretical framework for the case study consists of three main pillars; public innovation as a specific approach to changes in the public sector, public value as a parameter regarding the aim of public libraries, and the understanding of citizens as both citizens and users. All pillars address and are part of seeing living labs as an approach to value co-creation in the context of public libraries. In the following each concept is defined.

Public sector innovation: We understand public sector innovation as creation and realization of new ideas in public services, public service provisions, governance, policy, and even rules, norms and perceptions of political life (Sørensen & Torfing 2015).

Living Lab: 'Living lab is a conceptualisation of multi-contextual and cross-sectorial experimental user-centric innovation processes with the aim of developing and/or improving welfare products, democratic engagement, services or processes based on the application of co-creation methodologies depicted by trans-disciplinarity' (Fuglsang & Hansen, 2019, p. 45).

Public value: We apply Benington's (2011) definition of public value as dual: what the public values AND what adds value to the public sphere (Benington 2011: 42). In this manner there is a focus not just on individual interests (what people value) but also on the wider public interests (also in a long-term perspective).

User/citizen: We apply a broad definition of citizen encompassing both an abstract category of "citizens with rights" (targeting collective issues) and the citizen as a user of public services – herein as co-creator (targeting individual needs) (Langergaard & Carstensen, 2014; Sundbo & Toivonen, 2011).

Abbreviation	Definition
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
WP	Work Package



Introduction

This report is “Deliverable 3.9: Living labs for co-creation and co-innovation v3.0” of the Horizon Europe LibrarIN project. It reports “Task 3.3, Living labs for co-creation and co-innovation of WP3, Thematic and empirical work in selected co-creation areas”. Its aim is to explore how libraries develop experimental settings for co-creation and co-innovation.

Part 1 of the report is the literature review. It is identical to D3.7 as submitted to the commission.

Part 2 illustrates the cases selected and their relevance for LibrarIN, informing the tracker and the databases, as stated in the GA. . It is identical to D3.8 as submitted to the commission.

Part 3 is the new section with cross-case analysis based on the full case reports, models of living labs, stakeholder models and recommendations for policy and research.

PART 1: Literature review

1 Introduction

The approach utilized for the literature review is a systematized literature review of mostly academic articles in scientific journals (Grant & Booth, 2009) incorporating elements of a systematic literature review, including the PRISMA diagram during the search phase (Moher et al., 2009), but the review does not fully encompass the comprehensive scope of a systematic review.

The analytical findings of the review will form the basis for the proposed case selection criteria and provide an initial set of questions, facilitating further qualified empirical studies of libraries as living lab.

1.1 Purpose and Scope

The purpose of the study is to explore different concepts, theories and empirical examples of innovation and living lab activities in public libraries and their role in co-creation and co-innovation of library services. The review aims to highlight how such approaches can work as participatory and open structures for co-creation and co-innovation in the context of public libraries and as a basis for public value creation.

1.2 Approach for Work Package and Relation to other Work Packages and Deliverables

WP3 Thematic and empirical work in selected co-creation areas provides thematic and empirical work in three selected co-creation areas: 1) Digital transformation and ICT (Task 3.1); 2) Social entrepreneurship, public-private networks and social innovation (Task 3.2); and 3) Living labs for co-creation and co-innovation (Task 3.3).

The three reviews of each work tasks, and the related work in identifying key terms and themes, have informed the dialogue across work packages relative to recruiting for the stakeholder panel (WP5 Stakeholders' co-design and validation), conceptual clarifications (WP2 Conceptual framework of participatory management and sustainable growth) and an on-going awareness on how to build a strong foundation for mixed methods studies, i.e., how *WP3 Thematic and empirical work in selected co-creation areas* and *WP4 Measuring and monitoring co-creation in EU public libraries* can prospectively enrich each other.

1.3 Structure of the Deliverable

This document is comprised of the following chapters:

- Chapter 1 presents an introduction to the document;
- Chapter 2 presents the background and research question of the review;
- Chapter 3 presents the methodology;
- Chapter 4 presents the analytical findings;
- Chapter 5 concludes the deliverable;



- Chapter 6 presents future research of the work task: case selection criteria and initial questions for the case study research.

1.4 Note on the Living lab concept

Living lab as concept is often juxtaposed with or related to *innovation lab*. In the literature, both living labs and innovation labs are seen as practice-driven concepts that emerged at the beginning of the millennium as ways of ensuring collaborative innovation in the public sector. However, the main distinctions between the two concepts are their different antecedents and that living labs have a broader application across sectors, whereas innovation labs are often concerned with the public or the third sector. Moreover, Schuurman and Tönurist (2017) argue that innovation labs and living labs operate in different phases of the innovation process: innovation labs are seen as initiators of innovation and living labs as executors of innovation (Schuurman & Tönurist, 2017). However, this is not consistent with all other approaches (cf. Björgvinsson et al., 2010; Nesti, 2017).

The interrelatedness between the two concepts has been taken into account throughout the review, so despite the main focus being on living labs, initiatives labelled innovation labs or organizational forms not applying either of the concepts have not been excluded.



2 Background, definitions and research question

2.1 Background

The concept of Living lab is *not* a widely used approach to conceptualize and understand innovative activities and approaches in the context of public libraries. However, there is, in practice, a vast amount of co-innovation and co-creation going on in libraries, which is why there is a need for a refined conceptual framework to be able to analyze and further develop public sector innovation, co-creation of innovation and public value creation within the library sector.

2.2 Definitions

The following is a brief description of the public library and the Living Lab concept, its antecedents and its entry into the public sector innovation concept.

Public libraries

Public libraries are local information centers that make all kinds of knowledge and information readily available to their users, free of charge. The [IFLA-UNESCO Public Library Manifesto 2022](#) explains the current role of the public library as “providing universal access to and enabling meaningful use of information for all people” (Table 1).

Table 1: IFLA-UNESCO Public Library Manifesto 2022

The public library is the local centre of information, making all kinds of knowledge and information readily available to its users. It is an essential component of knowledge societies, continuously adapting to new means of communication to fulfil their mandate of providing universal access to and enabling meaningful use of information for all people. It provides publicly accessible space for the production of knowledge, sharing and exchange of information and culture, and promotion of civic engagement. Libraries are creators of community, proactively reaching out to new audiences and using effective listening to support the design of services that meet local needs and contribute to improving quality of life. The public has trust in their library, and in return, it is the ambition of the public library to proactively keep their community informed and aware. The services of the public library are provided on the basis of equality of access for all, regardless of age, ethnicity, gender, religion, nationality, language, social status, and any other characteristic. Specific services and materials must be provided for those users who cannot, for whatever reason, use the regular services and materials, for example linguistic minorities, people with disabilities, poor digital or computer skills, poor literacy abilities or people in hospital or prison. All age groups must find material relevant to their needs. Collections and services have to include all types of appropriate media and modern technologies as well as traditional materials. High quality, relevance to local needs and conditions, and reflective of the language and cultural diversity of the community are fundamental. Material must reflect current trends and the evolution of society, as well as the memory of human endeavour and imagination. Collections and services should not be subject to any form of ideological, political or religious censorship, nor commercial pressures.

The 2022 Manifesto quoted above emphasizes the role of public libraries in building communities, meeting local needs and supporting quality of life. It is more holistic than the previous version from 1994. The multifaceted role libraries are expected to play includes providing physical and digital spaces to proactively support citizens in the context of a changing community and society. Digital transformation has meant that people have direct access to information and knowledge from their homes. The role of the library must therefore evolve in line with societal changes.



This approach to public libraries also reflects the evolution of public libraries from professionally driven institutions with the public purpose of providing information and books to the public, to service and community spaces with a broader but more diffuse portfolio of tasks (Moring and Schreiber 2022; Hansson et al. 2015). Some scholars emphasize that libraries have evolved into 'community hubs' (Johnston et al. 2022), where local residents and other local stakeholders can convene, converse and collaborate and tackle communal or personal issues and obstacles.

Therefore, while the rationale of libraries has expanded and the need for it obvious, libraries can still deliver benefits and advantages for individuals and communities. A 2023 report from the UK predicts that English libraries could potentially generate £3.4 billion p.a. by offering services that bolster digital inclusion, health, wellbeing, independent living, and children's literacy. The report highlights that libraries provide comprehensive services that are adaptable and flexible to the community's needs, thereby decreasing pressure on other public services (Gordon et al., 2023).

Living lab as phenomenon

Historically, the term living lab originated in information and communication technology studies and later found its way into the broader field of products and services innovation (Følstad, 2008). From the outset, Living Labs have been a tool and approach for involving stakeholders in innovation processes, with a particular focus on creating testbeds. As such, Living Labs are conceptually based on a triple helix model of innovation, where stakeholders from different sectors inform and contribute to the innovation process, emphasising real ('living') contexts as the starting point for development. (Gascó, 2017). The use of living labs for public innovation has been extensively explored in a previous Horizon Europe project, showing how public innovation uses different formats of living labs for processual learning, creating spaces for innovation and democratic engagement (see Fuglsang & Hansen, 2022). In this report we build on this framework and explore it in relation to public libraries.

Living lab in a public sector context

The report takes the subsequent definition of living lab as point of departure:

'Living lab is a conceptualisation of multi-contextual and cross-sectorial experimental user-centric innovation processes with the aim of developing and/or improving welfare products, democratic engagement, services or processes based on the application of co-creation methodologies depicted by trans-disciplinarity' (Fuglsang & Hansen, 2019, p. 45)

Following the living lab definition, it is important to stress that the concept of living lab in a public sector context refers to both an innovation mindset, a concrete innovation approach and an analytical lens to better understand innovation and co-creation processes. The current main constitutive factors are 1) an openness to deliberate experimentation, 2) disparities in settings (schools, hospitals, libraries, communities, etc.) and 3) the involvement of different actors present at the same time.

In order to further distinguish the concept of living labs within the public sector, and as something slightly different from living labs in the private sector, a previous study examined several contexts of living labs in public organisations (Fuglsang & Hansen, 2022). The study showed that living lab contexts



were used for learning about innovation, for engaging stakeholders in innovation activities, and for democratic citizen engagement. The outcomes were both small incremental innovations integrated into the organisation, systemic innovations undertaken as a joint task, and radical proto-typing of new innovations by engaging citizens in experimental innovation processes.

Innovation in the public sector, and particularly within a living lab logic, aims to create public value. The concept of public value has different theoretical trajectories, but in the context of this report we build on the understanding advocated by Benington (2011), who sees public value as encompassing both *what is the public value* and *what adds value to the public sphere*. The implication is that public value is a contested practice referring to what is currently valued by patrons, citizens and communities, but also to what will be of value to the public in a long-term perspective (Benington, 2015:31).

2.3 Research question

Based on the mentioned scope and purpose, the following research question has guided the literature review, analysis and synthesis:

How are innovation and participatory methods applied and understood in the context of public libraries and how does this influence opportunities and limitations relative to co-creation and co-innovation of library services and other community services?

Co-innovation and co-creation are both concepts that refer to open innovation practices (Fuglsang, 2008) that involve stakeholders such as citizens, patrons and organizations in value creation. As innovation in the public sector context addresses public value, i.e., value for the public and society at large, the main aim of the study is twofold: 1) to understand the role of different actors in creating, initiating and facilitating innovative activities and 2) to analyze how these are conceptualized and presented in the research literature.



3 Methodology

To map innovation and participatory methods applied and understood in the context of public libraries a classical systematized literature review has been conducted. The advantage of a classical literature review is that it captures scientific knowledge about the transformation of the library space, but it does not take into account the fact that the library sector has a long-standing and strong professional culture that has led to intense shared reflexive activity. Professional work can be defined as *diagnosis*, i.e., the ability to define a problem, *inference*, the use of professional knowledge to make a judgement about solutions to solve a problem, and *treatment*, the carrying out of the solution (Abbott, 1988). Many resources other than research could have enriched the analysis.

Numerous professional resources, which are not research work, could have enriched the analysis. This includes practitioner blogs such as:

<https://www.publiclibrariesnews.com>

<https://www.ala.org>

<http://www.pearltrees.com/naindejardinparlant/bibliotheques-innovantes/id9997789#l778>

or institutional blogs:

<https://lil.law.harvard.edu/>

<https://blogs.bl.uk/business/>

or grey literature from library bodies or associations:

<https://www.ifla.org/g/clm/libraries-copyrightand-innovation/>

<https://www.cenl.org/?s=innovation>

<https://libereurope.eu/search-page/>

The advantage of including these resources would be to incorporate more recent professional ideas from the library profession. However, we have chosen not to do so in order to provide a better overview of the academic literature. On reflection, we realized that many of the case studies selected in the second year were from library organizations closely associated with this professional culture. Therefore, the most recent professional issues should be covered in the case studies and case analysis.

A systematized literature review

Moher et al. (2009) propose a PRISMA model as a basis for a systematic review strategy. We use this approach for selecting and screening the literature. The PRISMA model is based on a checklist for reporting the review together with a flow diagram showing the selection process of the included literature. The review strategy supports the mapping of relevant literature, the identification of research gaps and the clarification of contributions and findings in the existing literature base (Moher et al., 2009). However, in this report we used the approach as a basis for a systematized analysis of themes in the reviewed literature. Based on the research question, and in collaboration with a

professional librarian, the a search string was developed and used for searching in two databases: EBSCOhost and Scopus. The search string is presented below:

innovation OR 'participatory method*' OR 'living lab*' OR 'innovation method*' OR participation OR
'co-creation' OR 'innovation lab*'
AND
'public librar*' OR 'university librar*' OR 'national librar*' OR 'community librar*'

In the literature review, we avoided terms most commonly associated with library digitalization, such as citizen science and crowdsourcing, both of which are important to libraries and represent ways of engaging citizens in library development (digital transformations are addressed in D3.1). For example, libraries have used crowdsourcing to engage citizens in correcting language in newspapers digitalized by optical recognition or transcribing handwriting (Severson & Sauv  , 2019). By means of crowdsourcing, citizens are contributing work to the library. However, what we want to capture in this review is how public library spaces function as meeting places and experimental sites for engaging citizens in collaborative activities. This limitation was made not only for pragmatic reasons, but also to focus on the role of libraries as a particular physical place, similar to the town hall or a market place, where people meet to engage with societal issues.

The search in the two databases was conducted on 21 February 2023. We limited the search to English peer-reviewed articles from academic journals and books. We anticipate a strong contribution from the French and Spanish-speaking library communities, but the authors are limited to English skills. Still, the review revealed that the articles based on empirical case studies are geographically diverse – see table below.

Table 2: Overview of geographical context for cases referred to in reviewed articles

Geographical context	Number of cases
China	2
Norway	2
New Zealand	1
Australia	2
Spain	2
UK	3
France	1
Sweden	2
Denmark	3
US	4
Latvia	1
Germany	1
Hungary	1
Canada	2
Romania	1

We initially captured 5.858 articles (Figure 1). We then screened the sample to exclude irrelevant articles. As the main focus of the review was on the direct involvement of citizens and users, cases of co-innovation and co-creation, the creation of public value and the role of public libraries, the general exclusion criteria for the screening were as follows:

- Articles with a main focus on digitalization and software development
- Articles mainly focusing on academic libraries
- Instruction-based research and recommendations (with no citizens in co-development)
- Evaluation and simulation studies
- Medico-oriented articles

Moreover, early in the process it was established that open innovation processes within public libraries were linked to an overall increased focus on co-creation and co-innovation in the public sector following the shift from new public administration to new public governance – partly triggered by the financial crisis in 2007. As a result articles before 2008 were also excluded. Lastly, few of the articles assessed for eligibility were not available or turned out not to be in English.

The final body of literature included in the qualitative synthesis counts 39 articles. See Figure 2 for an overview of the selection and screening process.

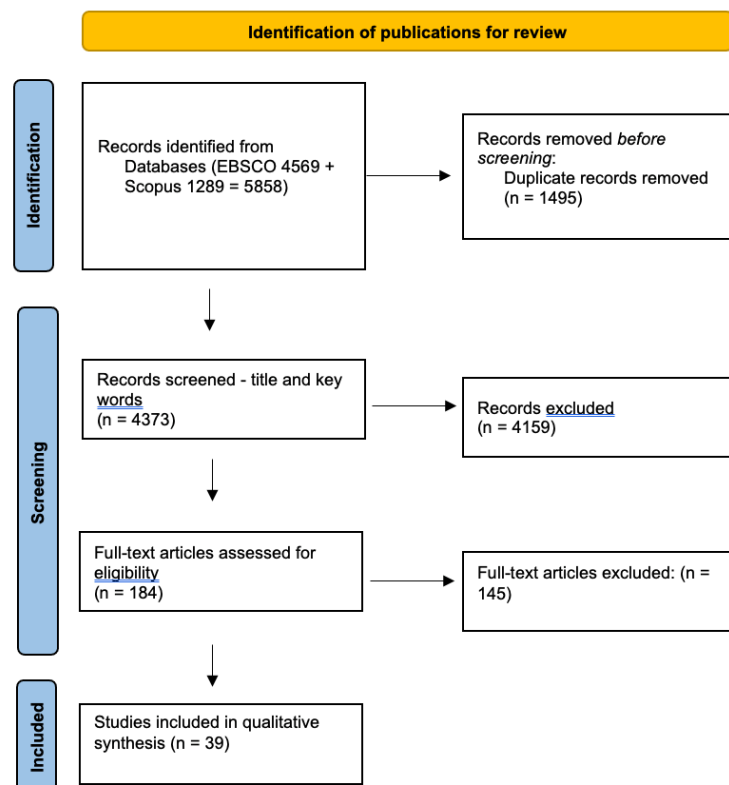


Figure 1: PRISMA flow diagram



3.1 Data analysis and coding

To share and map the key findings and content of each scientific paper, the research team used an extraction sheet – developed and refined at the beginning of the process. Based on this, an interpretative approach was taken to group the articles into a number of themes. The coding of the themes was discussed between the two lead researchers and then validated through an iterative process during several weeks of analysis. This became the starting point for the final synthesis; looking at the data through the lens of the living lab logic of public sector innovation detected in previous studies (e.g., Fuglsang & Hansen, 2022, see section 2.2). In this way, the data analysis is both inductive and deductive. Inductive, as the first and second order categories were developed based on the focus and language of the articles, and deductive, as the final selection of analytical themes applied the living lab framework of public sector innovation from previous studies.

4 Findings

4.1 Analytical themes: The library as a living lab

When we conducted a full-text search of the 39 selected articles in our sample, we found that the concepts of co-creation, public value and living lab were very rarely mentioned (Table 3).

Table 3: Word count of core constructs in the review

	Number of mentions	Number of articles
Living lab	354	2
Innovation lab	0	0
Innovation	1080	27
Co-creation / cocreation	165	9
Public value	75	5
Particip*	1406	37
Democra*	227	27

The term “living lab” is used only in two articles. Hernández-Pérez et al. (2022), based on a case study of a library living lab, argue that the library living lab is a socio-technical infrastructure that “transforms the library space into a place where multiple stakeholders, and especially public library users, meet together and are invited to participate in the innovation process of defining potential real services, projects, or products which have an impact in the whole community. At the same time, the way in which this innovation process takes place transforms the social dynamics of the community in terms of social cohesion and community engagement” (Hernández-Pérez et al., 2022, p. 24).

“Public value” is used in five articles to denote the overall goal for public libraries (i.e., to create or co-create public value). One article is specifically about “Reinventing the public value of libraries.” (Field & Tran, 2018). Field and Tran define public value “as the value that an organization contributes to society and the community in which they operate” (Field & Tran, 2018, p. 115). They argue that libraries are reframed as “vital components of a community’s social and economic infrastructure that connects communities, and encourages and promotes life-long learning and development” (Field & Tran, 2018, p. 125)

Co-creation is mentioned in nine articles. It refers to a new role that library professionals need to undertake to align professional practices better with citizens’ concerns. (Cigarini et al., 2021). One article explores “how co-creation may change the roles and relations between the library professional and citizens” (Moring & Schreiber, 2022, p. 1). Co-creation is applied in the context of exploring the changing roles of the library, particularly its approach to citizens, its role in innovation and the changing skills of library professionals.

The notions of innovation, participation and democracy are more prevalent in the different articles, but no clear approach to these concepts is developed. The mention of the constructs in the articles

reviewed suggests that innovation, participation and democracy are fundamental aspects of current library thinking and development.

While very few articles are thus dealing systematically with the concepts of innovation, co-creation, public value and living lab, these construct are still relevant and valid as s an analytical lens to describe an emerging new understanding of what the library should do. First, the reviewed literature clearly describe processes and changes of the library that are similar to, though not systematically described as, co-creation, co-innovation and the transformation of the library space into a living lab. Since there are many different models of these changes dependent on context, this transformation of the library space is, however, competitive and contested. Second, the public library has certain boundaries, strives for legitimacy and elaborates its typology as an infrastructure for citizens, to create outcomes in society which is similar to public value creation (Table 4). Thirdly, public libraries engage in innovation activities to co-create new services with citizens in order to align professional goals with citizens' concerns (Table 5).

Table 4: Public value creation of public libraries

Public value creation as latent construct	Illustrations
Boundary	For example: Public libraries are for the common good as spaces enabling social interaction and cultural capital creation.
Legitimacy	For example: libraries foster cultural diversity. They are platforms of civic participation available to all.
Typology	For example: They become "social/cultural libraries" with broader scope for community engagement and involvement.

Table 5: Service innovation of public libraries

Innovation and co-creation themes	Illustrations
Space-place services	Libraries create new social-physical (representational and dominated) public spaces enabling people to meet and interact .
Processual learning services	Libraries create and co-create new services that enable people to pursue individual interest and enable them to live better lives.
Democratic engagement services	Libraries engage citizens in service development and develop smart citizens, enabling citizen participation in innovation, and providing an innovation environment for the library and citizens.



To summarize, libraries as living labs address certain key features of public sector innovation such as providing infrastructure for appropriating, co-creating, co-researching and democratizing innovation. Libraries engage in boundary work (defining what they are), legitimacy work (remaining acceptable for citizens and policy-makers in terms of outcomes) and typology work (distinguishing different types, scopes of activities and methods).

The next section presents in more detail these findings.

4.2 Analytical themes: Public value creation of public libraries

Boundary work

As mentioned (see also Table 1) the public library sector has been subject to an acknowledged transformation towards emphasizing its role in building communities, meeting local needs and supporting quality of life (Caso, 2019; Cigarini et al., 2021; Lakind et al., 2019; Gasco-Hernandez et al., 2022). The implication of such transformation is that libraries turn from mainly delivering content to become learning facilitators, or as some argue, they move from being knowledge resources to support community needs and civic life (Gasco-Hernandez et al., 2022). This change in focus follows a general turn towards co-creation and innovation in the public sector, which is partly triggered by the financial crisis and increased digitalization.

Despite most literature being concerned with concrete case descriptions relative to these new roles and services, a number of articles seek to theorize 'public libraries'. Hernández-Pérez et al. (2022) argue for public libraries as boundary objects since they are seen as socio-technical infrastructure giving space for community members. Drawing on an example from a Spanish library with an integrated living lab they introduce the concept of library living labs (with reference to Vilariño et al., 2018): *The Library Living Lab is an open, participatory, and experiential space, fully integrated into the public library, where people, technology, and innovation meet and become drivers of social transformation* (Hernández-Pérez et al., 2022, p. 22). The social transformation is especially related to the library as a key actor in pushing digitalization and in the role as mediator of different perspectives and perceptions.

Hence, the aspect of libraries being boundary objects are related to an openness in regards to the understanding of 'library' itself; on the one hand it is open for interpretation as it represents different categories and meanings, and on the other hand the term is internationally recognized despite national differences (Hernández-Pérez et al., 2022). Down the same line Kine & Davidsons (2022) argue for libraries as a sort of hybrid organizations, resembling living organisms which is in a constant state of adaptation and change (Kine & Davidsons, 2022).

Another aspect of libraries as boundary objects is their historic role of preserving and being cultural heritage institutions. In most articles this is rather implicit, but a few make direct reference to the public library as 'the manager of a collective cultural treasure' (Crihana, 2018) or as a 'cultural icon' (Skot-Hansen et al., 2013). Also, some authors underscore how libraries can be seen as cultural intermediaries. They argue that the very ethos of the public library is social inclusiveness, why they are



central in creating cultural capital for e.g. disadvantaged citizen groups (Hodgetts et al., 2008; Lo et al., 2019). This is supported by Leorke and Wyatt (2018) who argue that libraries historically have played a central role in creating and sustaining a 'shared public culture'.

These new activities, collaborations and innovative initiatives seem to challenge the very content of what a library is, but still this overall discussion is not apparent in the literature. On the contrary, the literature reveals that even though the public library sector has been through, or are in the midst of, rethinking what the term public library refers back to, there is only few deeper discussions of what the implications of this is and if the term 'library' is still comprehensive. In sum, the term 'public library' is not challenged in literature, nor is the overall purpose of being a public institution offering access to knowledge and learning. A concern which might be related to the inherent openness towards diverse meaning-making processes and interpretations of what a public library 'consist of'. This leads to the greater issue of the legitimacy of public libraries.

Legitimacy work

The literature shows that across countries (worldwide) public libraries are in general innovative and quite experimental. Also, the literature reveals that many innovation activities are in fact based upon co-creation and co-innovation with both citizens, external organizations and public sector employees (Nicholson, 2019). Thus, it is not a question of whether public libraries engage in and trigger new initiatives, rather it is a question of how and in regards to legitimacy; why?

In continuation of the mentioned shift in service offerings, a number of articles are concerned with the *raison d'être* of public libraries (Delica & Elbeshausen, 2017; Lo et al., 2019). It seems as if there is an implicit or underlying discussion about how to preserve the central value offering; democratizing information and ensuring equal access to knowledge, while at the same time moving towards the new role for libraries (and their employees) as facilitators of learning and being a sort of backbone in community development (Hernández-Pérez et al., 2022; Kine & Davidsone, 2022; Crihana, 2018).

To exemplify, Crihana (2018) argues for: *'libraries to be considered as collective spaces for testing and validating innovative content co-creation solutions, in the spirit of fostering cultural diversity and preserving the immaterial patrimony of ethnicities'* (Crihana, 2018, p. 30).

Taking the perspective of librarians Kine and Davidsone (2022) add: *'From the point of view of librarians, libraries are an appropriate platform to implement various forms of civic participation. They ensure equal opportunities and access to library infrastructure and resources for any member of the society'* (Kine & Davidsone, 2022, p. 649).

In this manner the public library has become a public space for community value (co-)creation practices (Blewitt, 2012) or a sort of sophisticated 'community house'. Related, others emphasize public libraries as critical 'social' infrastructure since they are central in integrating immigrants and in ensuring citizen literacy in general (Delgado, 2023). These understandings are related to the perception that libraries create public value insofar they contribute to and with positive social, economic and environmental



outcomes (Field & Tran, 2018; Lo et al., 2019). Also, as the quote below stresses, public value is not only a here-and-now value, but is understood as long-term value creation.

They (libraries) are vital components of a community's social and economic infrastructure that connects communities, and encourages and promotes life-long learning and development. Libraries everywhere must reinvent the way they think about their purpose so that they can create enduring public value for everyone (Field & Tran, 2018, p. 127).

These examples from the literature furthermore underscore a general tendency; the literature is to a large degree characterized by positivity relative to the promises future libraries are understood to hold – as infrastructure of public value co-creation. But, there is little focus on the possibility for value co-destruction, neither regarding citizens, employees or society at large. Thus, the very legitimacy of public libraries lies to some degree in their *perceived* potential, since they as public institutions are still trying to find or develop a new 'public library' narrative. Being in this process, has led to a general lack of critical voices and discussions on possible downsides or negative consequences of the profound change in public library service offerings. To be able to raise such relevant questions, it thus seems appropriate to further explore different types and/or organizational forms of public libraires.

Typology work

Following the *raison d'être* of public libraries and their potential as boundary objects, there are in the literature attempts to create typologies to map their different roles and positions. At an overall societal level it is argued that public libraries are key in developing 'smart' cities, since they offer a platform for Quadruple helix model innovation to occur (Gasco-Hernandez et al., 2022; Hernández-Pérez et al., 2022). Quadruple helix innovation refers to a multi-stakeholder scheme of participation where universities, industry partners, governments, civil society actors and citizens via network and relations engage in co-creation. The argument is based upon the assumption that public value is created through such citizen participation and cross-sector collaboration, and that this is what libraries as institutions offer.

In continuation, the concept of participation is a focal theme in many articles (Engström & Dahlquist, 2020; Hernández-Pérez et al., 2022; Huvila, 2020). Through a study of policy documents Engström and Olsson (2020) explore how the notion of participation is constructed in the context of the Danish and Norwegian library sector. They argue that citizen participation both refer to a practice of governing users to self-governance, but also that citizen participation holds the potential to resist what is perceived unequal. In addition, Huvila (2020) exposes how librarians perceive user involvement and concludes that the underlying rationale is to see users as resources, hence reflecting a highly instrumental understanding of user participation. Despite the perception and degree of participation it is apparent how a key aspect is both libraries' role as 'developing' citizens and as convening communities. In regards to the former, it is argued that the different learning activities supports citizens to be involved and included in the larger society. Relative to the latter, and very much interlinked, the development of citizen skills are understood to go hand in hand with vitalization of local communities.

Delica and Elbeshausen (2017) propose a re-conceptualization of public libraries as a 'social' library, suggesting a shift towards greater community engagement and involvement. Based on case studies from the UK, Canada, and Denmark, the paper discusses three distinct types of social libraries. Firstly, the needs-based library (UK case) has a mission to reduce social inequality. Secondly, the community-led library (Canadian case) places communities at the forefront of public library organization and change. Finally, the library-led community (Danish case) represents a new organizational principle, combining the Nordic welfare model with the specific information needs of minority groups integrating into Danish society. The paper highlights the differences between these three types of libraries. The needs-based library indicates a shift towards prioritizing the local level for tackling marginalization and social exclusion. Library programs and practices are designed accordingly (Delica & Elbeshausen, 2017, p. 240). The community-led library, is founded on the responsibility of the community itself to make politics relevant to multiculturalism, social inclusion, and community building, resulting in a change in practices and self-perceptions within the public library sector. Lastly, the library-led community is the outcome of a national development program with the aim of creating community centers based on libraries. The implication is for libraries to broaden their range of services and features, adopting a new role as a network facilitator that connects local resources and institutions (Delica & Elbeshausen, 2017). A significant aspect to note is the library's ability to amalgamate previously isolated institutional knowledge and skills in the community. The social library thus embodies the ideal representation of local resources (Delica & Elbeshausen, 2017).

In continuation hereof, a review study has, within the public library sector, identified varied types of social innovations, which is defined as *'new products or services that are provided as a public good (...) with the intention of solving social problems and strengthening community ties'* (Winberry & Potnis, 2021, p. 337). Winberry and Potnis (2021) argue for the following six main types: lifelong learning (means for ongoing literacy training), emergency response (disaster response and recovery efforts), civic engagement (public interaction with stakeholders and institutions), economic development (stimulation of financial growth in local communities), health (encourage physical and mental well-being, and diversity and inclusion (support for socially marginalized groups (Winberry & Potnis, 2021, p. 345). The key argument is that these social innovations support libraries' role as community anchors, whether they are user-centered or community-centered social innovations.

Finally, some authors distinguish between library-led and community-led activities. To exemplify, Delgado (2023) differentiate library-led cultural programs from immigrant-led cultural programs. The first type of programs are activities where library staff purposefully plan and bring in cultural celebrations, and the second type is initiatives from individuals, groups and local organizations. Delgado's study points to the fact that the latter are the ones with most positive results. Kine and Davidsone (2022) proposes an additional category of civic participation, besides events initiated by the library and events organized by users solely using the resources of the library. That is, a more collaborative form, where the user/patron initiate an event that is realized in partnership with the library.



To sum up, public library typologies addresses different aspects; types of organization, types of innovations and types of activities. But key factors influencing these aspects relate to whether they are citizen-led, community-led and/or library-led.

4.3 Analytical themes: Service innovation of public libraries

Space-place services

Some authors have sought to encapsulate the essence of libraries through the concept of the 'third space' (Oldenburg, 1989). As public institutions, libraries are seen as third spaces (Elmborg, 2011; Williams, 2018). The term refers to places other than work or home where people can meet, interact, and network, such as cafes and sports venues. Libraries as third spaces are seen to have a unique role to play in generating value outcomes for the community and encouraging citizenship. Library services can aid all members of society to participate in both individual and societal developments (Williams, 2018). Further, libraries hold a specific image as public space accessible to the public in all communities and subject to public scrutiny. Hence, the literature emphasizes transformations of place-space service characteristics developed through innovation activities.

Most of the reviewed literature emphasizes that the library is a professionally managed and facilitated place-space. As such, the literature stresses the continuing need for librarians and other staff to sustain the library space. The one paper that takes the creation of public value as its starting point implies that librarians and other library professionals are needed for libraries to provide public value because it adopts the public manager perspective on public value creation of Mark Moor (Field & Tran, 2018). Another paper focuses on the role of the library for social innovation (Winberry & Potnis, 2021), implying that library professionals can facilitate social innovation. There is less research on bottom-up, citizen-led approaches to library spaces. A few studies highlight how the community can use the library space as a community center. However, of the 39 articles reviewed, at least 2 do include a clear community perspective on the library space (Andersen & Bilfeldt, 2017; Delica & Elbeshausen, 2017).

The conventional perspective within library research has predominantly emphasized libraries' role as purveyors of information and books. This has historically been closely associated with a specialized profession, the librarian, which is now facing challenges (Moring and Schreiber, 2022). These challenges are paving the way for novel interpretations of library professionals as creators and facilitators of new spaces for social interaction.

There is an observable shift from perceiving libraries as overseen by 'librarians', towards seeing them as 'community centers' where librarians facilitate activities and provide space for patrons to carry out activities on their own (Delica & Elbeshausen, 2017). Library spaces are dedicated to fostering community cohesion and are managed by 'library personnel' or 'library professionals'. Within this evolving space-place, librarians are in the process of assuming new, yet evolving roles, with the required skills still taking shape. Libraries are described as 'idea stores' and 'living rooms' (Delica & Elbeshausen, 2017), addressing issues such as 'lifelong learning,' 'civic engagement', and 'social inclusion' (Delica & Elbeshausen, 2017; Hernández-Pérez et al., 2022; Winberry & Potnis, 2021).



Much of the literature on the role of libraries is rooted in library studies. It therefore struggles to redefine the specificity of the library space and the library professionals. Elmborg (2011) highlights that libraries have historically been perceived as 'dominated spaces', implying that they are public environments where users are expected to adhere to specific codes of conduct. Elmborg contrasts this view with that of 'representational spaces', which are characterized as 'individual, perceptual, intuitive, and symbolic' (Elmborg, 2011, p. 11). They become 'third spaces' (drawing on Oldenburg, 1989) akin to cafes and bars where patrons can act in an intuitive and less regulated way. However, the literature on libraries that we have reviewed predominantly sets out to explore and explain the library's role as a somewhat regulated space, orchestrated by professionals, and guided by the mission to deliver and collaboratively create public value (Field & Tran, 2018).

In addition, Elmborg (2011) posits that for libraries to endure as specific spaces, there is a need to shift their approach away from being individual and intuitive (bars, cafés, living rooms), towards being more structured so that we can recognize a library and distinguish it from a bar. The role of the librarian as a distinct profession in this evolving context appears increasingly uncertain. Other professions, notably anthropologists and social workers, are gaining comparable significance in shaping the library space (Moring & Schreiber, 2022; Delica & Elbeshausen, 2017).

In summary, in the reviewed literature, libraries, as physical spaces, undergo a transformation that can be categorized into three interconnected service dimensions: as 'new professional space-place services', 'community space-place services' and 'inclusive space-place services'

1. **New professional space-place services:** Library spaces are conceptualized as linked to the library professionals aiming to establish a public space that is focused on specific library-related activities, particularly those associated with reading and education.
2. **Community space-place services:** Libraries are conceptualized as evolving into vibrant hubs of social activity, offering innovative environments like maker spaces (Lakind et al., 2019) and social innovation spaces (Gorham & Bertot, 2018). These spaces foster social interaction, creativity and community building.
3. **Inclusive space-place services:** Libraries are stated as supporters of social inclusion, catering to marginalized individuals (Williams, 2018) and those with health-related challenges (Gordon et al., 2023). They facilitate interactive learning, including language acquisition in natural settings, and offer opportunities for co-creation activities (Moring & Schreiber, 2022). Libraries contribute to individual value creation (quality of life) and broader citizenship development, enhancing people's competencies as citizens (Gasco-Hernandez et al., 2022).

Processual learning services

The role of public libraries for learning is described in several papers. Learning, often conceptualised as a *processual learning*, can occur through social interaction or in the context of social innovation activities (Delica & Elbeshausen, 2017; Gasco-Hernandez et al., 2022). Active participation in such activities can entail learning outcomes. Learning outcomes encompass various skills, including digital skills, literacy, language proficiency for immigrants, and improved self-management of health concerns. Additionally, learning is also seen as interest-based, with individuals learning more about

hobbies and interests such as literature, sewing, or handicrafts. Furthermore, learning can also contribute to empowerment. Overall, libraries' learning activities are described in terms of individual needs and interests (user-centred) and citizenship (enabling participation in societal activities, e.g. social innovation) (Gasco-Hernandez et al., 2022).

However, while processual learning can be an outcome of social interaction in the library, learning also suggests the need for services to specifically support these learning activities. The expanding role of libraries therefore has an impact on the requested skills of staff and the perception of librarians. Rather than being a silent, book-centric space that suppresses noise, there is now an emphasis on new modes of work organisation and capabilities that support a more welcoming and socially engaging library organized for numerous processual learning activities (Hernández-Pérez et al., 2022).

Moring and Schreiber (2022) discuss the shift towards a more co-creative approach in the library. They provide three examples from Norway and Denmark to showcase how libraries can aid or engage in co-creation initiatives, with reference to a typology consisting of four kinds of co-creation: controlled, responsible, facilitated, and equal. In the initial three situations, the librarian assumes a crucial function as facilitators of co-creative approaches, whereas in the final, library experts play a lesser role.

More generally, Moring and Schreiber (2022) note that the library professionals need new relational and collaborative skills. The role of library professionals is moving *towards an understanding of professionals that by engaging in solving problems and cases through co-creation develop their expertise* (Moring & Schreiber, 2022, p. 8). *When connections are made between professionals and other professionals or citizens, they need to be able to define their work as a kind of expertise as well as to perform and articulate it in a way, which can be identified as legitimate by others* (p. 9).

In summary, the library is described, in the reviewed literature, as evolving from a service delivery with distinct roles for patrons and librarians to a dynamic and collaborative processual learning service responding to the needs of the community and providing services in collaboration with stakeholders particularly citizens of the community. This co-creative process entails skills development for both users and librarians. Patrons can enhance their personal skills or their skills as citizens through interactive learning processes, while librarians must acquire knowledge of services, service development and how services can be delivered through co-creation activities with patrons.

Librarians are described in relation to the needs of citizens and as operating within a community and stakeholder context. Ideally, there is a move towards libraries becoming much more collaborative, creative and participatory learning environments (Nicholson, 2019). Terms used in the literature include welcoming environments (Delgado, 2023) that can serve as ecosystems for learning and the transfer of culture (Crihana, 2018). Moreover, libraries can engage in smart city development and social development as active partners in a model known as the quadruple helix model (Gasco-Hernandez et al., 2022; Engström & Dahlquist, 2020; Kine & Davidsons, 2022). They are also engaged in user participation (Huvila, 2020), addressing community challenges (Gorham & Bertot, 2018; Winberry & Potnis, 2021), and supporting special groups like immigrants in adapting to life in a new country



(Grossman et al., 2022). Consequently, the library engages in a range of processual learning activities, both for its own staff and for patrons (as individuals with special needs and interests or/and as citizens engaged in community development), that refine and broaden interpretations of the public value of libraries (Field & Tran, 2018).

Democratic engagement services

Libraries have traditionally taken a role in democratic engagement, as advocated by the 'library spirit' promoting free and public access to books and information. Citizens can thus strengthen their competence and education as members of society.

However, although citizen engagement remains a central purpose for the library, there is also a broadening of the library role towards more participatory approaches, as expressed in themes such as 'Libraries for Life' and 'Health and Wellbeing' (Gordon et al., 2023). Libraries do not merely support people's education as citizens but also offer services to help individuals improve their quality of life. Patrons are intended not only to improve their citizenship generally but also to interactively and reciprocally develop practices that enable them to live better lives and become smarter citizens.

Gascó-Hernández et al. (2022) posit that within the context of smart cities, libraries can contribute to democracy in three key areas: 1) developing smart citizens, 2) enabling citizen participation, and 3) providing an innovation environment. First, libraries address the skills gap that undermines citizen involvement in smart city initiatives. Libraries play a role in fostering smart citizens who can contribute to the smart city agenda and utilize smart city initiatives. Second, while it appears that fewer programs and services are targeted towards citizen participation, libraries facilitate some level of involvement in smart city initiatives. Third, certain libraries offer facilities that encourage innovation and experimentation, empowering citizens to participate actively in the 'innovation ecosystem' and assist them in being co-creators in smart city endeavors. The library furnishes both a tangible and virtual platform for cooperation that allows citizens to experiment with their visions and interact with others to enhance and cultivate them. Similarly, Hernández-Pérez et al. (2022) argue that public libraries can provide a technological infrastructure for social transformation, placing citizen engagement at the centre of innovation processes. Furthermore, they argue that libraries can contribute to strengthening social cohesion through situated, collective and technology-based innovation practices.

There is a small literature dedicated specifically to libraries' relationship with the maker movement. The maker movement is characterized by a do-it-yourself and collaborative approach that values distributed expertise and open workspaces. These values are believed to be intrinsic to the library profession (Lakind et al., 2019). These authors assert that public libraries were established with the purpose of democratization: to involve people in the social and political landscape and to expand their access to literature deemed valuable (p. 235). Based on a case study spanning three years of a maker program at Madison Public Library (MPL) in Madison, Wisconsin, the authors assert that libraries may offer free and inclusive access to making, librarian-led maker programs, as well as community connections for makers.



In brief, the literature presents varied perspectives of the library as a democratic institution, predominantly grounded in case studies and conceptual work. Libraries and librarians play a crucial role in promoting engagement and fostering community connections. Participatory activities can be initiated either by the library (with the involvement of library professionals) or through the library (with the participation of community groups) (see Delica & Elbeshausen, 2017). In many of the papers reviewed, the focus lies on the function of library professionals. The aim is to formulate new conceptualizations of the role of libraries and library professions in the development of smart and democratic citizenship.

Previously, libraries were mainly viewed as supporting representative democracy by enabling citizens to participate in the democratic process through their civic education. Currently, there is a greater emphasis on participatory democracy and the emergence of more informal and innovative spaces where citizens' initiatives can thrive. The literature mainly presumes that libraries are institutions that promote democracy. However, further critical studies that question the role of the library in promoting democracy may be necessary (see Engström & Dahlquist, 2020).

The reviewed literature appears to emphasize a participatory agenda without, however, providing a clear rationale for why participation is imperative. Additionally, these studies do not seem to consider the fact that individuals may visit the library for reasons other than democratic engagement (e.g. needing a quiet space for studying and reflecting). It raises the question whether there are other institutions and organizations that are better equipped to deliver on the democracy agenda as compared to libraries. Such issues require further research in the context of, among others, broader and more universal co-creation and innovation studies.

5 Conclusion

The research question of the report was: *How are innovation and participatory methods applied and understood in the context of public libraries and how does this influence opportunities and limitations relative to co-creation and co-innovation of library services and other community services?*

Based on the literature review and the key themes detected, Figure 2 is to be seen as a tentative answer to the research question.

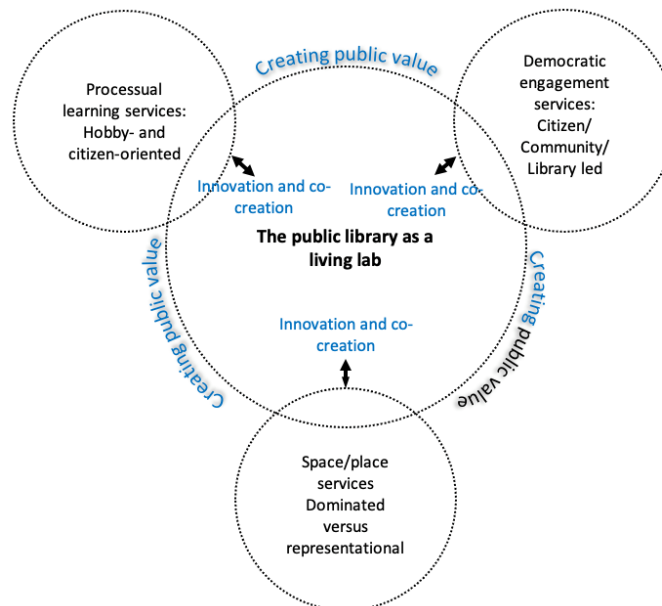


Figure 2: The public library as a living lab in an eco-system context enabling public value creation

Libraries are thus increasingly framed as a socio-technical infrastructure for citizens, comparable to an experimental living lab context. The boundaries of libraries and library professions are related to their role in public value creation and the services they provide in terms of processual learning services, space-place services and democratic engagement services. The library framed indirectly as a living lab in this sense means that co-creation and co-innovation of library services seems to be foreseen in the reviewed literature; however, there is also a skills issue at stake as library professionals need to identify, learn and adopt new skills of co-innovation and co-creation.

Both opportunities and limitations are related to the unclear understanding of what libraries should become in the future. The field is characterized by positivity, but the causal relationship between the value of concrete local initiatives and activities and more general societal value creation has not yet been established. One limitation in the reviewed literature, for example, is that the generally positive attitude towards libraries may hinder discussions about what they are *not*, as they continue to develop into spaces or places that encompass 'everything'. However, this positivity can also be a powerful force in rejuvenating the public library and ensuring its future viability as a central and significant cultural institution.

Part 2: Illustration of the cases selected and their relevance

6 Case selection

Based on the literature review, four case selection criteria were chosen, relating to the themes identified about public value creation, processual learning services, space-place services and democratic engagement services. These are presented below as continua between two poles that need to be represented to varying degrees in the cases included.

- 1) **Public value-creation:** the focus of the library is mainly long-term (cultural and social) public value creation – the focus of the library is mainly here-and-now public value creation (such as offering interest/hobby-based services or responding to specific citizens' needs).
- 2) **Processual learning services:** Services are social innovations that address community challenges, or they are domain-specific innovations and related to the library's core activities.
- 3) **Space-place services:** the library space evolves as library-led with the library as driver of innovations – the space is community-led with the community as a driver of innovation.
- 4) **Democratic engagement services:** citizens have decision-making power in innovation processes – citizens are mainly informing innovation processes.

To enable a variation of cases a spider web diagram was applied to visualize three case types through several rounds of iteration among the authors (see Figure 3).

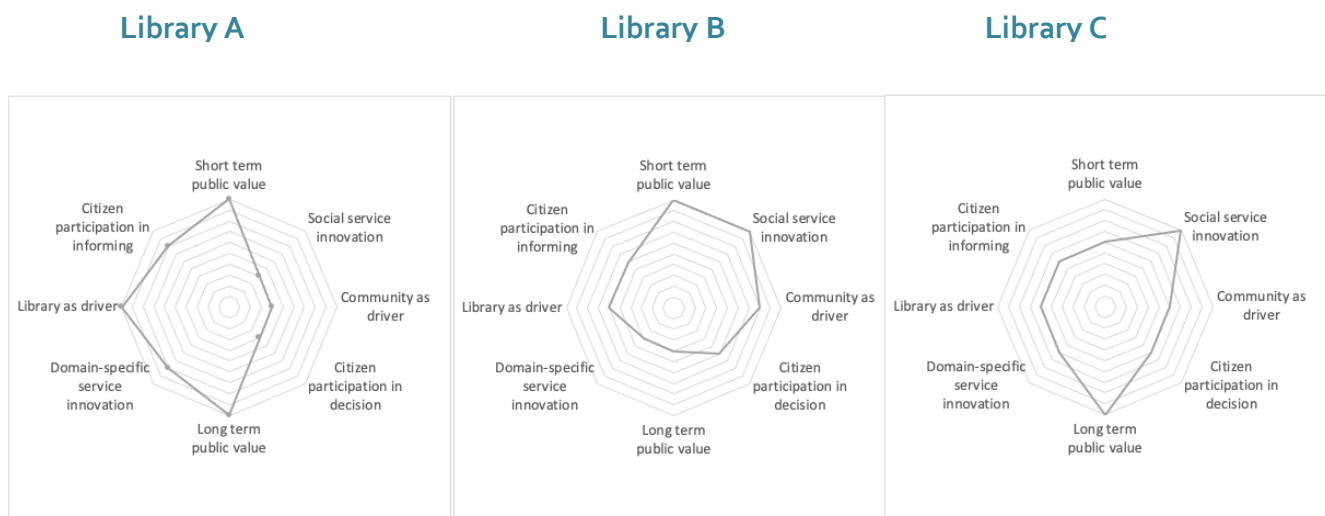


Figure 3: Selection criteria dimensions

The three library types were validated through expert interviews (with Heads of libraries). For example, an expert interview with the Head of Development in a large Danish library confirmed the three different libraries presenting them as ideal types as briefly outlined below to illustrate how the selection criteria have been applied.



Library A: It has developed a detailed long-term strategy of public value creation focused on developing domain-specific service innovation (e.g. reading and education). Patrons have limited influence but inform in the innovation process through focus groups, observations and surveys. Library development is mainly driven by library professionals, especially management.

Library B: It utilizes a more informal approach of public value creation that is oriented towards short-term challenges in the community. It is driven by community and community spirit as a “cultural house” where people come for various reasons. They focus social innovations and development of cultural experiences to improve the community experience, and active citizen participation.

Library C: It has developed an innovative long-term strategy for creating public value. The policy aims for libraries are to be places where citizens are supported in their aspirations and needs to grow, learn and be inspired. Using design thinking, the library works with citizens to bring about change through co-creation. This methodology promotes citizen ownership and engagement with libraries.

Moreover, the case studies were centered around exploratory questions relative to: role, competences, innovation and co-creation, which are all key to Task 3.3. Initial key questions were:

- Role: What roles do public libraries claim to have in public value creation? What are the various ideas, preferences of library professionals?
- Competences: What skills are changed/enhanced on the side of the library professionals, the patrons, stakeholders and other contributors? How is value creation organized between them?
- Innovation: What forms of innovation processes are important? Are they participatory or not? How?
- Co-creation: Are public libraries oriented towards value co-creation of/with users and citizens? If public libraries are run by the public sector, are they then capitalizing on possible civil society initiatives in their process towards centralizing community activities?



7 Initial list of possible case studies

Based on our review, the first Stakeholder panel meeting of the LibrarIN project, and reviewers comments, we identified an initial preliminary list of potential case-libraries of the various types. For some of the libraries we state what we initially estimated to be the library type, while for others this was not possible at this stage:

- Dokk1, Århus, Denmark (Library C type)
- Oodi, Helsinki, Finland (Library C type)
- De Krook, Ghent, Belgium (Library C type)
- Storyhouse, Chester, England (Library C type)
- Deichman Bjørvika, Oslo, Norway (Library B and C type)
- LILLIAD , Lille, France (Library type C)
- The C3 library, Vienna , Austria (Library Type C)

- The Library Rentemestervej (Copenhagen municipal library), Copenhagen, Denmark (Library B type)
- BPI, Paris, France (Library B type)
- Les Champs Libres, Rennes, France (Library B type)
- Frederiksberg Library, Frederiksberg, Denmark (Library A/B type)
- Library as outset for activism, Leeds, UK (Library B type) (stakeholder Josh Sendall)
- 'Living library' events, different target groups, Austria (stakeholder Julius Schrögel) (Library B type)
- Municipal library of the City of Vantaa, Finland (Library Type B)
- The Vienna Municipal Library , Vienna, Austria (Library Type B, to be explored)
- The Medialab, Tabakalera, San Sebastián, Spain (Library B type)

- Sandro Penna, Perugia, Italy (Library A type)
- Malmö University Library, Malmö, Sweden (stakeholder: AnnSofie) (Library A type)
- National Library of Latvia, Riga, Latvia (stakeholder: Katrina Kukaine) (Library A type)
- Libraries for children, Paris, France (stakeholder Julian Maréchal) (Library Type A/B)
- Paderborn City Library, Germany (stakeholder: Katrin Stroth) (Library type to be explored)
- Library living Lab, Barcelona, Spain (Library B type).
- Utrecht University, Utrecht, The Netherlands. (Library Type A)
- TU Delft, Delf, The Netherlands (Library Type A)
- The Austrian National Library, Vienna, Austria (Library Type A)

8 Selected cases

Each partner then selected case studies based on the agreed case selection criteria through dialogue with the Task leader. We ended up with a total sample of 16 cases. This was primarily a purposive sampling strategy, but it included some elements of convenience sampling (Patton, 2015) due to time, resource, and access constraints of the partners. Note that one of the cases was divided into two case studies (case 12 and case 13) and further investigated as such to better capture two different aspects of that case.

As shown in the table below, we selected cases from southern, western, central, and northern Europe. However, due to resource constraints, we were unable to include libraries from eastern Europe or the UK. The sample was judged relevant because it included libraries located in partner countries, allowing us effectively to develop a deep understanding of the libraries in their local context.

Table 6: Cases pr. country

Country	No of cases
Greece	2
Spain	2
France	2
Austria	2
Belgium	1
The Netherlands	1
Denmark	3
Finland	3

Among the cases, all were public libraries. Two were sub-cases of living lab activities in libraries, and two were university/research libraries. Across these cases, we believe there is saturation regarding the main themes established for the analysis in terms of libraries acting as living labs.

A brief overview of cases is provided in Table 7 below.

Table 7: Overview of cases

Library case	Objective	Co-creation/-innovation	Competencies	Public Value
Case 1: Public Central Library of Sparta, Greece	Traditional and modern information services, local content digitization, reading and education.	Limited citizen involvement and influence, engages users in service development.	Digital literacy, soft skills, continuous learning; wide range of skills.	Supports democracy, lifelong learning, digital literacy.
Case 2: Public Central Library of Veria, Greece	Promotes public value through design thinking and co-creation.	High user engagement in service development.	Digital literacy, adaptability, lifelong learning.	Education, culture, critical thinking, qualities community engagement.



Library case	Objective	Co-creation/-innovation	Competencies	Public Value
Case 3: Bibliotheek De Krook, Ghent, Belgium	Hub for knowledge, culture, and innovation for the population. Living lab philosophy.	Tactical use for specific projects.	Diverse skills as “public librarian”, but also skills to increase outreach.	Education, empowerment, sustainable design, community development.
Case 4: Digital Humanities Workspace, Utrecht University, Netherlands	Supports education, research, and innovation in digital humanities. Facilitates interaction and experimentation.	Facilitates collaboration among researchers, educators, librarians.	Digital proficiency, facilitation skills.	Enhances digital literacy, provides hybrid learning spaces, educates staff in DH.
Case 5: Library Living Lab, Sant Cugat del Vallès, Spain	Collaborative space for experimentation and co-creation. Commitment to innovation and technology.	Engages diverse communities in co-creation processes. “No best method”. Empowering users.	Soft skills, trust and reliability, flexibility, and versatility.	Democratizes access to knowledge, innovation.
Case 6: MediaLab-Tabakalera, San Sebastián, Spain	Combines individual and shared creation spaces, a “third place” catalyst for “things to happen”. Working-class neighborhood.	Uses agile methodologies, minimal staff intervention.	Flexibility, transparency, dialogue with users. Transversality.	Cultural creation, social cohesion. Creating communities.
Case 7: Dokk1, Aarhus, Denmark	Supports education, enlightenment, democracy in an open library space for people rather than books.	Emphasizes citizen involvement, co-creation. Experimenting with new formats.	Relational skills, design thinking. Curatorial approach. Team work.	Democracy, learning, community engagement.
Case 8: Rentemestervejen Library, Copenhagen, Denmark	Library, cultural center, citizen service center.	Balances user-driven and staff-driven initiatives. Particularly strong in cultural activities.	Relational, social work skills.	Social cohesion, democratic potential.
Case 9: Frederiksberg Library, Denmark	Focuses on culture, education, reading, community hub.	Supports volunteer activities, citizen initiatives.	Relational, process-oriented skills.	Literacy, democracy, community engagement.
Case 10: LILLIAD Learning Center Innovation, University of Lille, France	Modernizes university libraries with a focus on innovation. Aims to provide a “third space”.	Uses UX design methods for service innovation, co-creation and co-production.	Development of relational and creative skills; user experience design.	Open science, human values, critical thinking.
Case 11: La Petite Bibliothèque Ronde, Clamart, France	Promotes children’s access to literature, culture, and	Engages children in cultural experiences, co-creative workshops.	Cultural mediation, facilitation of children’s discovery and interaction.	Addressing broader societal challenges in socio-economically deprived areas.

Library case	Objective	Co-creation/-innovation	Competencies	Public Value
	children's literature and reading.			
Case 12: Helsinki Central Library Oodi, Finland	Functions as a living lab for cultural, social, technological activities.	Involves citizens in co-creation, co-innovation and service development from the outset.	Diverse skill sets, digital facilitation. Cultural producers, media professionals, and educators.	Democracy, lifelong learning, inclusivity, empowering citizens, lifelong learning.
Case 13: Makerspace at Oodi, Helsinki, Finland	Provides public access to advanced tools, technologies.	Engages users in designing services, projects; promotes inclusivity in the knowledge economy.	Digital facilitation, interpersonal and communication skills.	Democratizes the creative process and access to technology, fosters innovation.
Case 14: Vantaa City Library, Finland	Strengthens literacy, inclusion in local communities.	Collaborates with schools, kindergartens, associations. Engages locals in volunteer network. Service design methods.	Co-creation mindset, pedagogical skills. Building co-creation skills.	Social inclusion, literacy. Private and public value are both addressed such as wellbeing and inclusion.
Case 15: Vienna Libraries, Austria	Provides diverse services beyond traditional library roles.	Iterative, trial-and-error approach to co-creation and co-innovation.	Networking, being perceptive of citizens and tensions, foster new ideas based on active citizenship.	Democratizes access to knowledge, public space.
Case 16: C3 Library, Vienna, Austria	Provides a space where citizenship, policy, and academic discourse intersect.	Applies co-creation in terms of "moderated co-creation". library services are defined roughly and then elaborated together with the library community.	Skills in participatory approaches as a basis for educational initiative. Many academics.	Addresses global challenges through local engagement.

In Table 8, we have grouped the library cases by type, based in a preliminary analysis by each team. As can be seen, most of the library cases are of type C, which was expected since type C is most likely to exhibit the characteristics of a living lab as defined in the project (See section on List of terms: 'Living lab is a conceptualisation of multi-contextual and cross-sectorial experimental user-centric innovation processes with the aim of developing and/or improving welfare products, democratic engagement, services or processes based on the application of co-creation methodologies depicted by trans-disciplinarity').

Table 8: The library cases divided by type

Library A	Library B	Library C
Public Central Library of Sparta, Greece - Central Library: Focuses on domain-specific service innovation with limited patron influence, driven by library professionals.	Rentemestervejen Library, Copenhagen, Denmark - Community Library: Functions as a cultural house with a focus on community spirit and short-term challenges in a neighbourhood with many young people.	Public Central Library of Veria, Greece - Central Library: Uses design thinking and co-creation to support citizens' access to culture and critical thinking.
Frederiksberg Library (Central), Denmark - Central municipal library: Focuses on culture, education, reading, community. Reading skills among children. Supports volunteer activities, citizen initiatives.	Frederiksberg Library (Danasvej), Denmark¹ - Community Library: Oriented towards community engagement and cultural experiences, partly driven by active citizen participation in a wealthy neighbourhood.	Dokk1, Aarhus, Denmark - Central municipal library: Uses design thinking and co-creation to empower citizens.
LILLIAD Learning Center Innovation, University of Lille, France - University Library: Emphasizes long-term strategy and domain-specific service innovation, driven by management.	La Petite Bibliothèque Ronde, Clamart, France - Community Library: Focuses on innovations and cultural experiences of children, fostering trust in the neighborhood with families less involved with art and culture.	Helsinki Central Library Oodi, Finland - Central municipal library: Focuses on co-creation and citizen engagement to support lifelong learning, democracy and inclusivity.
Vantaa City Library, Finland - Municipal Library: Uses co-creation to address community needs and support literacy and inclusion. Supports multilingual families.	MediaLab-Tabakalera, San Sebastián, Spain - Community Library: Uses an informal approach to public value creation, focusing on cultural experiences and community engagement in a working class neighbourhood.	C3 Library, Vienna, Austria - Hybrid Library (Academic, Public, Community): Combines academic, public, and community roles with a focus on innovation and co-creation, driven by professionals.
Vienna Libraries, Austria - Metropolitan Library Network: Develops services with a focus on literacy and culture but also other activities to enhance societal participation, democratic values, inclusion, well-being.		Bibliotheek De Krook, Ghent, Belgium - Central municipal library: Promotes public value through a living lab philosophy.
		Digital Humanities Workspace, Utrecht University, Netherlands - University Library: Supports innovation and co-creation in digital humanities.

¹ The Frederiksberg library case includes a branch library (Danasvej) with a profile as community library.



Library A	Library B	Library C
		Library Living Lab, Sant Cugat del Vallès, Spain - Community Library: Engages in co-creation and innovation to support community needs.
		Makerspace at Oodi, Helsinki, Finland - Makerspace: Engages users in co-creation and innovation to support community aspirations.

9 Method

According to the General Agreement, the case studies will explore what public libraries as living labs illustrate regarding new open institutional structures for co-creation and co-innovation of public library services, including practices, structures, and outcomes. The case studies should emphasize how emerging institutional structures address individual and public value creation (and resolve conflicts between them), analyzing libraries' co-creation, co-innovation, experimental methods, and legitimacy in the context of public library services.

A case protocol with case guidelines (Appendix A) was provided by the WP leader as template for case studies to enable comparison across cases. The guidelines includes questions for interviews, templates for possible observations and document studies, and a format for reporting the cases.

The case studies were conducted as qualitative research, primarily using methods such as semi-structured interviews, (participant) observations, document studies, and focus groups. If partners wanted to supplement their studies with methods like experimentation, action research, service design methods, or quantitative studies, they were asked to notify the WP leader to develop a reporting format suitable for comparative studies. However, no such requests were made.

The protocol consisted of templates for data collection, however these could be adapted and customized to the specific case study, and a template for the final report. Case reports for all 16 cases were developed following this template

We left it to the partners to decide on the number of interviews, observations and documents to be conducted, depending, for example, on the size of the libraries, saturation (Patton 2015) and available resources. Saturation both between and within cases is crucial, but qualitative studies and sample sizes in qualitative studies depend on the heterogeneity of the population, selection criteria, number of types, availability and resource constraints. The themes as described in the case reports seemed relatively homogeneous, although libraries varied widely in size, investment and skills. Also, we noted the strong role of professional groups and organizations in this field allowing dissemination of perspectives on library development and the future of libraries across national and institutional contexts. The template was also intended to ensure that we had a common focus in line with the General Agreement.

A template for achieving informed consent was provided (Appendix B).

The data collection methods judged useful for each case are summarized in Table 9.

Table 9: Overview of cases and methods applied

Researcher	Library	Description of research	Method in short
ATC: Anna Triantafyllou	The Public Central Library of Sparta, Sparta (EL)	Three in depth semi-structured interviews of approximately 1-2 hours long was carried out with the Director and two key front-line	Interviews: 1 Director 2 Employees



Researcher	Library	Description of research	Method in short
		employees; observations based on the general discussions; online observation of their main activities, seminars and workshops and document studies.	Observations Online observations Document studies
	The Public Central Library of Veria, Veria (EL)	Five in depth semi-structured interviews of approximately 1-2 hours long with the Deputy Director and key front-line employees; observations based on the general discussions I had with managers and front-line employees, online observation of their main activities, seminars and workshops and document studies.	Interviews: 1 Deputy director 4 employees Observations Online observations Document studies
LC: Francesco Molinari	Bibliotheek De Krook, Ghent (BE)	Semi-structured interviews with 2 employees were conducted and several website pages and project information were analysed. The analysis focused on the challenges, especially related to capacity and time availability of involved staff, whenever the library engages in co-creation with selected user groups.	Interviews: 2 employees Webpages Documents
LIBER: Olivier Hersperger	The Digital Humanities Workspace, Utrecht University, Utrecht (NL)	Two interviews were conducted, as well as two non-participant observations, which led to shorter interviews. A total of seven people were interviewed, they are all involved in the DHW activities. In parallel to these exchanges, three documents were used to analyse the DHW mechanisms: the Utrecht University Policy Plan 2022-2025, the DHW website, and the Centre of Digital Humanities website. Some articles in relation to the DHW activities and the development of these activities were used as well.	Interviews: 7 employees 2 non-participant observations 3 documents
UAH: David Gago Saldana	Library Living Lab, Sant Cugat del Vallès-Barcelona, & BiblioLab Network,	The fieldwork was nurtured by two online interviews (an L3 expert and the L3 co-founder), the observational findings from the EU Co-Val project, and academic articles published on this case.	Interviews: 1 expert 1 co-founder Previous findings published in academic articles



Researcher	Library	Description of research	Method in short
	Province of Barcelona(ES)		
	MediaLab-Tabakalera, San Sebastián-Basque Country (ES)	Five different interviews were undertaken (four corresponding to front-end employees and one to a manager profile). Numerous observational insights were collected during the session, which took place on the 28 th of February 2024.	Interviews: 1 manager 4 employees Observations of users
RUC: Lars Fuglsang Anne Vorre Hansen	Dokk1, Århus (DK)	Semi-structured interviews with 2 managers, 6 employees, and 3 partners/users were conducted. 12 documents were analysed and observations of users were made during three days of visit. The analysis revealed a number of themes, including difficulties, concerning the library as an experimental site for citizen engagement.	Interviews: 2 managers 6 employees 3 partners/users 12 documents Observations of users over three days
	Rentemestervejen Library, Copenhagen (DK)	The case study is conducted as qualitative research, consisting of seven in-depth interviews and document studies. The data set was subject to thematic analysis.	Interviews: 7 employees Documents
	Frederiksberg Library, Frederiksberg (DK)	Semi-structured interviews with 2 managers and 2 users were conducted. 6 documents were analysed and two observations were made. The analysis revealed a number of themes concerning the library as an experimental space and space for social innovation .	Interviews: 2 managers 2 users 6 documents 2 observations of users
ULILLE: Christine Liefoghe	LILLIAD Learning Center Innovation, University of Lille (FR)	3 top managers, 4 managers, 5 employees, 6 researchers, 2 external partners (entrepreneurs) were interviewed. 2 focus group sessions were organized with students. In addition to flyers, 8 paper documents were analyzed, as well as 6 reports of the Documentary Steering Committee. Other digital documents (internal documents) were also send by the respondents to illustrate certain elements mentioned during the interviews	Interviews: 3 top managers 5 employees 6 researchers 2 external partners (entrepreneurs) 2 focus groups Flyers 8 documents 6 reports Webpages



Researcher	Library	Description of research	Method in short
	"La Petite Bibliothèque Ronde" (PBR), Clamart, Paris Urban Region (FR)	1 manager, 4 employees, 2 external partners were interviewed. During an observation session, discussions with 2 parents and 2 children. In addition to flyers and booklets, 21 documents were analyzed, either activity reports, book chapters or academic articles.	Interviews: 1 manager 4 employees 2 external partners 2 parents 2 children Flyers and booklets 21 documents
VTT: Kirsi Hyytinen Tiina Tuominen Paul Windrum	Helsinki Central Library Oodi, Helsinki (FI)	The study is based on an analysis of seven interviews with library managers and employees, one interview with a collaborating partner, and documentation and other information about library law library and city strategies, development activities, and services.	Interviews: 3 managers 4 employees 1 external partner Documents: Library Law Helsinki city strategy 2017 - 2021 Learnings from a customer survey conducted at Oodi during 2022/23 (four documents) Oodi websites Observations: A walk through Oodi spaces and functionalities while discussing co-creation in these spaces with informant M2, Feb 2024 A guided tour at Oodi, May 2024
	Makerspace at Oodi as a Living Lab, Helsinki (FI)	The study is based on an analysis of seven interviews with library managers and employees, one interview with a collaborating partner, as well as documentation on library law, city strategies, and Oodi's development activities and services.	Interviews: 3 managers 4 employees 1 external partner Documents: Library Law Helsinki city strategy 2017 - 2021 Learnings from a customer survey conducted at Oodi during 2022/23 (four documents) Oodi websites Observations: A walk through Oodi spaces and functionalities while discussing co-creation in these spaces with informant M2, Feb 2024 A guided tour at Oodi, May 2024
	Vantaa City Library, Vantaa (FI)	The study is based on an analysis of seven interviews with library managers and employees, one	Interviews: 3 managers 3 employees



Researcher	Library	Description of research	Method in short
		interview with a collaborating partner, and documentation and other information about library strategies, development activities, and services.	1 external partner Documents: Strategy documentation Internal documentation about collaborative work Library law document Library website Vantaa City webpages
AIT: Doris Schartinger Dana Wasserbacher	Vienna Libraries, Vienna (AT)	The case study builds on different forms of data, empirical observations, 10 interviews, meetings or onsite exchanges in the library, 5 participants observations of events taking place in the library, as well as numerous archival material such as annual reports, newspaper archives, observation of their social media channels and blog posts.	Interviews: 10 interviews 5 participant observations Annual reports Newspaper archives Observation of social media channel Blog posts
	The C3 Library in Vienna, Vienna (AT)	The case study builds on different forms of data, coming from nine different empirical observations: from two meetings, one radio events, one on-site exchange, three participant observations, one non-participant observation, and two interviews with library staff. Furthermore, archival material such as annual reports, newspaper archives, and blog posts was included.	Interviews: 2 interviews with library staff 2 meetings 1 radio event 1 on-site exchange 1 non-participant observation Annual reports Newspaper archives Blog posts

10 Illustration of cases

Full reports were written for all cases. As we have promised confidentiality, the full case reports are not made public but are available only to the engaged researchers and reviewers and respective case organizations for approval. The full case reports will be used as a basis for various national and cross case publications, adhering to a code of conduct reflecting Annex 5 to the GA, Article 16.

Below, we illustrate each of the cases using summaries provided by the researchers and validated by the case organizations. These summaries are structured in accordance with template for case reporting from the case protocol (Appendix A). In the forthcoming deliverable, which will report on the final findings and implications of the case studies for policy and research, the full case studies will be subject to an in-depth cross-case comparison.

10.1 The Public Central Library of Sparta, Sparta (EL)

Author: Anna Triantafillou (ATC)

Intro: The Central Public Library of Sparta was founded in 1972. It is a public entity and belongs to the group of public libraries, which are supervised by the Ministry of National Libraries Section and Education. It has five full-time employees: the Director, one librarian, two floor staff that deal with day to day operations and one person at reception desk as well as four seconded school teachers per year that offer support in library services and in the department of education.

The central Public Library of Sparta provides its public on the one hand with the traditional services of a general library and on the other with the services of a modern information center. In addition, it places special emphasis on the collection and digitization of documents of local content, as well as the implementation of educational programs. It focuses on the creative use of computing and technology services for the fulfillment of social, educational, and cultural needs for Sparta and the wider periphery. Technology plays a crucial role and is seen as a driving force for rejuvenating the public library and ensuring its future viability as a central and significant cultural institution.

Method: Three in depth semi-structured interviews of approximately 1-2 hours long was carried out with the Director and two key front-line employees; observations based on the general discussions; online observation of their main activities, seminars and workshops and document studies.

Objective and legitimacy: The library has developed a detailed long-term strategy of public value creation focused on developing domain-specific service innovation (e.g. reading and education). Patrons have limited influence but inform in the innovation process through one to one communication, observations and surveys. Library development is mainly driven by library professionals, especially the Director.

Co-creation: The role of public libraries in co-creation and co-innovation processes was emphasized, with a focus on engaging users, patrons, and citizens in the development of service offerings and value-adding initiatives that respond to the community's needs and interests. The staff members mentioned



the importance of incorporating feedback and suggestions from users, as well as collaborating with external actors such as local organizations and schools to create value for the community.

It is mainly in the last few years that the library is more actively involved in co-creation processes. This is due to the restrictions often imposed by working with citizens of a small provincial city who are not always open to change, new ideas and experimentation. For example, the Director mentions that 'when we organised our first event around entrepreneurship we had 35 participants and the 20 where from other cities'. As staff and the Director note, it took time and effort to show to the public the value that the library can produce beyond the book and how vital and dynamic the public's own participation can be.

Competencies of staff: The biggest emphasis here is placed on digital literacy and a willingness to engage in a continuous learning in relation not only to modernized library systems and software but also for everyday practices. This vision is set by the Director who is also a qualified IT professional in the library and embraced by the employees. Other than digital literacy the employees stressed the importance of competencies like soft skills, adaptability, willingness for life-long learning, and strong communication skills. The employees play a vital role in understanding the diverse needs of the community and translating them into innovative programs and services that support the users in all areas of their lives. Overall, employees seem to understand and embrace the fact that they need to possess a wide range of competencies and skills to engage in co-creation and co-innovation effectively. Only by embracing change, fostering collaboration, and adapting to the needs of the community, can public libraries continue to be vital hubs for knowledge, education, and community engagement in the future.

The role of users: Citizens and communities play an important role in creating value for the library. Their input, suggestions, and active participation in co-creating services and programs contribute to the library's success and relevance. Citizens also volunteer, collaborate, and attend events, showcasing their commitment to the library as a valuable community resource. The input from citizens and communities helps determine priorities, design services, and assess the impact of initiatives on the community. For the most part however, in the case of Sparta we see overall a more limited involvement of the public in co-creating content and services. The Director is the one that plays the biggest role in proposing and implementing innovative services.

Other stakeholders: Private actors, such as local organizations, companies or NGOs and individuals, contribute to the co-creation process by offering support, donations, and expertise. By collaborating with private actors, the library can access new technologies, funding for innovative projects, and specialized knowledge to enhance the services and programs it offers. For example, employees mention the limitations of their financial budget and how very often they rely on the support and funding of local businesses, while individuals may donate books or volunteer their time towards workshops or seminars. Communities also play a vital role in co-creation and co-innovation within the library as seen by the collaboration with the Laconia theatre group and the local Cathedral. Citizens can provide valuable input, suggestions, and ideas for new programs and services based on their needs



and interests. While the final decisions may still be made internally by library staff and management, the input and collaboration of external actors can contribute to the success and sustainability of co-creation initiatives.

Network enabler: The intermediary and network function of the library is primarily related to other units and administrations or to established institutions where the library joins forces i.e., with schools or with local communities or external companies to co-produce value. From an employee perspective the role as intermediary and network enabler is understood as a space where citizens of all ages and groups can come together to connect, to take action and to learn. The library puts a lot of emphasis on nurturing entrepreneurial skills through the Startup Weekend Sparta and similar initiatives. The purpose of these seminars is not only to provide aspiring entrepreneurs with resources and training but also to support initial creation phases and project launches, which can then be scaled up elsewhere with other collaborators or partners. The library acts here as an innovation intermediary/network enabler and helps citizens kick off projects and scale up by connecting creators and makers with wider innovation networks, which can amplify the success and innovation impact of the projects.

Public value: Public value is described here as multi-faceted including democracy, life-long learning, creating a supportive environment for citizens, digital literacy and democratization of technology, supporting citizens in their personal and professional development, maintaining its traditional role as a library while also providing a diverse range of services beyond book lending. Public libraries are seen as spaces for sharing knowledge, fostering education, and addressing the needs of individuals and society as a whole. Overall, staff members emphasized the role of public libraries as community hubs that provide access to knowledge, support personal growth, and contribute to the cultural and educational enrichment of society.

Success criteria: The idea of success criteria for citizen engagement and co-creation is primarily related to quantifiable measures. Some forms of success criteria that were mentioned include visitor numbers, participation in workshops and seminars, and the impact on the local community. The number of initiatives co-created with users, the frequency of collaborations with external stakeholders, and the quantity of feedback gathered from users through questionnaires can be considered as output metrics. The data highlights the positive impact of user collaboration on the success of initiatives like educational programs, workshops, and events, indicating a positive outcome in terms of user engagement and satisfaction.

To improve the measurement of success criteria, the library has recently started using a new questionnaire called LibQual which gives the opportunity to measure quality criteria like the quality of the services offered and the satisfaction rate of users. As noted, 'Based on the results, we can better understand the expectations of our audience and identify their main needs. This allows us to improve our services in a targeted way. Another way that shows our impact, although not measurable, is when we ask external stakeholders to support us. For example, when we request a local company to provide money or food and drinks for an event, they respond positively. They recognize the value of the library and give back to us generously.'



Conclusion: The Central Public Library of Sparta is seeking innovative solutions, resources and services in order to adapt to the new reality and serve the changing needs of its users. It is slowly evolving from a space with distinct roles for patrons and librarians to a more dynamic and collaborative environment. To protect the legitimacy of the library in the future, all employees seem to agree that new technologies and digital literacy should be the priority. The employees have adapted to this new reality and have in most cases outgrown the traditional model of the librarian. Alongside this tendency however, there is a strong urge to protect the book as well as the Laconic history and culture as the core value of the library, creating an inherent paradox in the library's function.

The Central Public Library of Sparta is trying to "democratize" access to advanced technology such as 3D printers, robotics, virtual reality, and other tools and is emerging as a space where technology, creativity, and community needs intersect. Despite the will and realisation of this importance however, the library hasn't been able to fully harness the potential of technology to meet evolving community needs and expectations. This is due to limited financial resources and the challenges associated with engaging a community that may be hesitant to embrace new ideas and experimentation.

10.2 The Public Central Library of Veria, Veria (EL)

Author: Anna Triantafillou (ATC)

Intro: The Central Public Library of Veria was founded in 1952 and offers its services to the residents of the city of Veria, the Regional Unit of Imathia and Central Macedonia. It has 20 employees. A cornerstone in the library's history and its development into a living lab is the award "Access to Learning 2010" by the Bill and Melinda Gates Foundation in August 2010. Additionally, in December 2012, she was awarded a prize of the "Academy of Athens" for her educational work. It has 34,963 registered members and lends more than 150,000 items annually.

The Veria Central Public Library focuses on the creative use of computing and technology services for the fulfilment of social, educational, and cultural needs for more than 180.000 people –and the number keeps on growing. The library, taking advantage of the Gates Institution grant, renovated its premises and entered a whole new dimension. New departments were improvised to cater for both traditional and innovative needs. In the library, you can now use a recording studio (Media Lab), a Maker Space equipped with a 3D Printer, an inspiration area, cutting-edge technology, education and learning rooms, relaxation and study.

Method: Five in depth semi-structured interviews of approximately 1-2 hours long with the Deputy Director and key front-line employees; observations based on the general discussions with managers and front-line employees, online observation of their main activities, seminars and workshops and document studies.

Objective and legitimacy: The Central Public Library of Veria has developed an innovative long-term strategy for creating public value. It aims to be a place where citizens are supported in their aspirations and need to grow, learn and be inspired. Using design thinking, the library works with citizens to bring



about change through co-creation. This methodology promotes citizen ownership and engagement with libraries.

All in all, all the employees stressed in the interviews that they understand the role of public libraries as a space that nurtures democratic citizens and the readers of tomorrow. They try to make the library a daily or weekly habit for them not only through educational and creative workshops but also through entertainment (i.e., they have designed a space with game consoles like Xbox One to attract the young generation which they see as their most important group of users).

Co-creation: The role of citizens and communities in co-creating public value is evident through the active engagement and responsiveness of front-line employees, who successfully fulfil public demands in 90% of cases. This is achieved not only by implementing ideas but also through the creativity lab on the 1st floor, which is available for free to citizens, communities, individual groups, or companies for presentations and seminars ranging from book presentations to cyber security seminars. This space is designed to welcome and foster new ideas, inviting everyone to participate, lead, and learn from each other.

Another example is the initiative 'Come with your hobby,' where citizens share and teach their hobbies, such as sewing techniques and cooking classes. Public libraries are evolving into community hubs and maker spaces, where people come together to connect, be educated, or be entertained.

Competencies of staff: The competencies needed for staff members to engage in co-innovation and co-creation were identified as digital literacy, soft skills, adaptability, and a willingness for lifelong learning. Staff members highlight the importance of being open to new ideas, responsive to user feedback, and actively seeking opportunities for collaboration with external partners and organizations. The profile of librarians is evolving to encompass a more diverse skill set, including educational skills, digital literacy, and the ability to deliver innovative programs. The role of front-end employees in public libraries is evolving to become more proactive, innovative, and community-centred. Employees seem to understand and embrace the fact that by possessing the necessary competencies and collaborating effectively with stakeholders, they can drive co-innovation and co-creation initiatives that enhance the value and impact of public library services.

The employees have adapted to this new reality and have outgrown the traditional model of the librarian with their role broadening into that of a facilitator, educator knowledge bearer, creative thinker and leader of workshops and seminars. They see this dual nature of their role as something positive and negative. As the majority of the employees note they are happy to be stimulated and learn new skills, but at the same time the lack of specialized staff is one of the library's biggest obstacles in co-creation and co-innovation. There is also a contestation of which competencies are relevant in the future.

The role of users: User engagement is a key driver in the creation and implementation of various initiatives and services within the library. Users provide valuable feedback and suggestions that shape



the library's offerings, leading to a more tailored and responsive approach to meeting community needs. Examples such as interactive workshops, community-led initiatives, and collaborative projects demonstrate how users actively participate in co-creation processes, influencing the content and structure of library programs. Input from citizens and communities helps determine priorities, design services, and assess the impact of these initiatives on the community.

For instance, the CERN – Scientists for a Day workshop began as a private initiative and was further developed by the library. Similarly, the cyber-security seminars were initiated and conducted by a library user.

Ultimately, the active involvement of users and citizens in co-creation processes is essential for the continued relevance and success of public libraries. By listening to community needs, fostering collaboration, and adapting to changing demands, libraries can enhance their value proposition and better serve the diverse needs of their patrons.

Other stakeholders: Private actors, such as local organizations, companies, and individuals, contribute to the co-creation process by offering support, donations, and expertise. Local businesses may provide funding for specialized equipment or sponsor specific programs, while individuals may donate books or volunteer their time to lead workshops or seminars. The robotics competition for example heavily relies on volunteers who act as coaches and leaders of the various teams. The summer camp also relies heavily on volunteers which are in most cases, parents.

These external actors participate in co-designing services, and co-implementing initiatives, showcasing a collaborative approach to value creation. Communities also play a significant role in co-creation/co-innovation in public libraries. Citizens and local organizations provide valuable input, suggestions, and feedback that inform the development of services and programs. By actively engaging with the library staff, citizens contribute to the success of initiatives and help shape the overall value created by the library.

Network enabler: The intermediary and network function of the library is primarily related to other units and administrations or to established institutions where the library joins forces i.e., with schools or with local communities or external companies to produce value that no party would be able to produce on its own. To give some examples this involves offering the space at the request of citizens or organizations for workshops and seminars to offering the equipment (i.e., the sound studio) but relying on the expertise of a volunteer (i.e., a sound engineer) to materialize a programme or offering the know-how but relying on an external agent for funding as is the case with the robotics team.

The library serves as an intermediary and network enabler, creating a space where citizens of all ages and groups can come together to connect, take action, and learn. It plays a significant role in combating loneliness by providing a place for people to find mutual interests and support in their daily lives. The library is seen as a 'community space' where people can engage in togetherness and feel empowered to take action, fostering a sense of community and social engagement.



Public value: Firstly, the main role of public libraries was described as multifaceted, including free access to knowledge, organizing workshops and lectures, promoting lifelong learning, and serving as a community hub. Public libraries are seen as spaces for sharing knowledge, fostering education, and addressing the needs of individuals and society as a whole. However, alongside this more narrow perception of the public value of the library as a space that offers access to knowledge, many employees also stressed the importance of the public value of the library being to nurture future readers, people who think, democratic citizens who know how to lay claim to their needs.

The more far-reaching role of libraries as democratic cornerstones is here linked to education and culture which shows that the individual needs and the common good is interwoven for the employees. Employees seem to share the belief that culture, education and literature are key in widening the citizens' horizons and enabling critical thinking, qualities which add societal value and support a society's democratic potential.

Success criteria: The idea of success criteria for citizen engagement and co-creation is primarily related to quantifiable measures. Some forms of success criteria that were mentioned include visitor numbers, participation in workshops and seminars, the number of books borrowed, and the impact on the local community. These metrics can provide insights into the short-term and long-term value of the library, both on an individual and common good level.

When asked about how the impact of co-creation and co-innovation can be measured some employees responded that other than the quantifiable measures such as high visitor numbers, they understand the success by other non-measurable factors such as that many foreign schools and individuals do tours at the library when they visit Veria. It has become a sort of tourist attraction because of their good reputation in their field. However, there seem not to be any success criteria related to the more long-term impact of democratic education or other social and relational dimensions of co-creation of value at the library.

Conclusion: The case of the Public Library of Veria illustrates the changing role of public libraries in the public sector which is now driven by a shift towards offering a wider range of services beyond traditional book lending, becoming community hubs that support lifelong learning and cultural enrichment. The library is evolving with new media, spaces, skills, and networks, focusing on people rather than books. However, there seems to be an inherent paradox in the library's function in the urge to be innovative, stay relevant and adopt new technologies, services and methods while at the same time protecting the book as the core value of the library and staying anchored in historical roots and the local cultural legacy and create systems that maintain all this. Finally, challenges such as limited financial resources and the need for specialized staff were identified as potential obstacles to further enhancing the library's impact as a living lab.

10.3 Bibliotheek De Krook, Ghent (BE)

Author: Francesco Molinari (LC)



Intro: De Krook is a public library and media centre located in Ghent, Belgium, in a modern building spanning approximately 18,000 square meters, designed to be an open and accessible space, encouraging community engagement and continuous learning. The library opened its doors on March 10, 2017, as part of a large-scale urban renewal project located on a bend (“krook”) of the river Scheldt that wraps around the site. The design for the building was selected through an international competition and has since become a significant architectural landmark for Ghent.

The library is a collaborative initiative involving the City of Ghent, the University of Ghent, and IMEC (Interuniversity Microelectronics Centre), a world-leading research and development hub based in Leuven, Belgium, but with a significant presence in Ghent through the IMEC-MICT-UGent research group. This group studies the interaction between technology, people, and society, aiming to empower individuals in a digitizing world.

De Krook library aims to be a hub for knowledge, culture, and innovation for the population (lifetime memberships are free of charge). Since the beginning, the initiative was inspired by the Living Labs “philosophy” – vision and approach, notably via the project entitled “Library for the future”, financed by the City Library of Ghent and carried out by the University of Ghent through the IMEC-MICT-UGent research group between June 2013 and May 2014 – well before the opening of the library.

The physical environment of De Krook is integral to its value creation, enhancing accessibility, fostering community engagement, and supporting diverse learning and innovation activities within the population.

Method: We conducted semi-structured interviews with 2 employees and analysed several website pages and project information. The analysis focused on the challenges, especially related to capacity and time availability of involved staff, whenever the library engages in co-creation with selected user groups.

Objective and legitimacy: Surprisingly the issue was not newly felt or unknown. Achieving legitimacy in the future is seen to depend on the ability of public libraries to adapt to changing societal needs and technological advancements. It is however a bit of a paradox that the same elements (e.g. adaptation to digital trends) can act as a limitation (e.g. when it comes to managing digital rights). In the specific case of De Krook the place itself – for the above stated reasons – is an important source of legitimacy.

Co-creation: While very familiar with the concept and also the antecedents of library’s association with Living Lab co-creation principles, the interviewees did not push themselves to the point of making co-creation an integral part of the library’s vision or “manifesto”. The use of co-creation is more tactical, for instance, project related and unavoidable when it comes to “special” services like improving Dutch fluency of non-native speakers, where the variety of potential beneficiaries can have an influence on service design.



Competencies of staff: There are mixed feelings in the respondents, alternating pride for the role played of “public” librarians, also complemented by a sense of passionate gratitude for doing such a “special job” in public administration, with the awareness of the existence of unavoidable limitations – in staff endowments, capacity of human resources, etc. – to the scope and outreach of institutional activities and especially newly designed services.

The role of users: The interviewees outlined one of the possible contradictions emerging whenever one attempts at reiterating forms of user engagement in co-creation or even making them stable or permanent. The contradiction lies in the fact that the level of energy and passion required to perform co-creation can more easily be achieved in a small group of “usual suspects” (that one staff member calls “believers”) who are recurrently invited, and usually happily accept, to participate. This however leaves the issue of reaching the “silent majority” of potential, and also real, beneficiaries largely unattended.

Other stakeholders: The impression received during the interviews is that the collaboration with the IMEC-MICT-UGent research group is mostly implemented on a project basis, but its influence is little felt at the front line staff level, apart from the cases of real service transformation as a byproduct of that collaboration. Regarding the Quadruple Helix, stakeholders belonging to the business sector are less represented than the others, exception being made for small and micro entrepreneurs who find in the De Krook library a space to meet and work, and the small but significant network created around the library’s Media Centre, housing Urgent.fm, a local radio station, and providing spaces for media-related activities.

Network enabler: As mentioned, networking is most notably promoted via the extended usage of library’s facilities. The public investment leading to De Krook was part of a large-scale urban renewal project, which reestablished a connection between the population and a specific area of the city of Ghent. The library serves as a hub and meeting place for the community. Its building’s design encourages social interaction, collaboration, and a sense of belonging.

Public value: De Krook offers significant value both in the short-term and long-term, benefiting individuals as well as the broader community. Short-term value includes access to a vast collection of books, digital media, and other resources, community engagement via events, workshops, and cultural activities, and the technological empowerment of users via cutting-edge technologies like 3D printers, virtual reality, and digital tools. Long-term value include contributing to the educational development of the community, innovation support by facilitating research and development projects, and showcasing sustainable design and practices in its own facilities, which promote environmental consciousness and serve as a model for future public buildings.

Success criteria: There is no formal consideration of KPI or other indicators, however the (short) story of De Krook documents its twin aim that is not only to provide traditional library services but also to act as a cultural and innovation catalyst for the population of Ghent, in all its nuances and varieties (including new comers, creatives, young people, disabled etc.).



Conclusion: The case study on De Krook shows the latent tension between a long-term focused project – inaugurated by, but not exhausted with, the new building hosting the library in a formerly degraded area of the City – and the necessity to renew its purposes and expected achievements on a continuous basis, in order to keep its credibility. The excessive dependence of the library's institutional innovation on projects financed by third parties, which is an obvious implication of the severe budget controls operated by every public administration in Europe, creates a gap between ambition and performance, which may be paid off in the future, as soon as it becomes more evident to the population of the City. As an immediate outcome, the perception of this gap promotes a sense of disillusionment in the daily life of staff members who are trapped in the routine while dreaming of scaling to higher levels of quality in their engagement, also for the sake of personal progress and self-recognition in their careers.

1.1 The Digital Humanities Workspace, Utrecht University, Utrecht (NL) .

Author: Olivier Hersperger (LIBER)

Intro: The Digital Humanities Workspace (DHW) was officially launched in May 2021. It is located in one of Utrecht University's library buildings, in the heart of Utrecht.

Although Digital Humanities (DH) is not an entirely new field of research, it thrives on the intersection of diverse expertise and emphasises technology. Therefore, the teaching of DH and the planning of DH projects require spaces such as the DHW for innovation, experimentation, and collaboration.

Method. Two interviews were conducted, as well as two non-participant observations, which led to shorter interviews. A total of seven people were interviewed, they are all involved in the DHW activities. In parallel to these exchanges, three documents were used to analyse the DHW mechanisms: the Utrecht University Policy Plan 2022-2025, the DHW website, and the Centre of Digital Humanities website. Some articles in relation to the DHW activities and the development of these activities were used as well.

Objective and legitimacy: The DHW is designed to support education, research, and innovation in the field of Digital Humanities. Its creation was driven by the need to equip staff, especially educators, with digital skills aligned with the university's goals of creating hybrid learning spaces.

Co-creation. Those two concepts, yet never enunciated by any interviewee, are intricated in the DHW's mission. The DHW facilitates collaboration between researchers, educators, librarians, and digital experts to create new knowledge and develop digital tools and methods. The space itself, in the university library, is designed to encourage interaction and experimentation, with flexible setups and advanced technological equipment that support hybrid formats. The library's role as a central meeting point for knowledge-sharing enhances co-creation processes, it emulates innovation as different perspectives come together to tackle challenges and explore new possibilities in Digital Humanities.



Competencies of staff: The DHW exists through the cooperation of the Digital Humanities team of the Utrecht University library and the Centre for Digital Humanities (CDH) of Utrecht University. The team structure behind the DHW is flexible, allowing experts to contribute as needed, depending on the specific demands of projects. Regular weekly walk-in sessions feature a core team of professionals, providing guidance on DH projects for faculty, researchers, and students. These professionals have very different careers, and when new members are recruited, two skills are specifically looked at in a candidate: digital proficiency and facilitation ability.

Public value. The long-term objectives guiding the DHW initiatives are clear: they aim at preparing young adults for life in the Digital Age. Digital literacy is indeed seen as essential for later democratic engagement and informed decision-making, especially in a world increasingly shaped by algorithms and digital platforms. While students are an indirect audience, the primary focus of the DHW is on educating the staff. By equipping staff with DH knowledge and helping them incorporate DH elements into their teaching, the DHW indirectly passes this knowledge on to students.

Success criteria for citizen engagement. The DHW is still in its early stages, but there are several possibilities to assess its engagement with citizens (students and staff) and consequently its success. One measure is the output of the weekly walk-in hours, where faculty, researchers, and students can seek guidance on digital humanities projects. Each interaction may differ, but even small contributions help spread knowledge and influence digital literacy. Another possible metric is the integration of digital humanities elements into the university's curriculum, and to this extent the integration of DH tools and DH methods into their teaching. This has actually started in September, for the new academic year 2024-2025, with elements of DH in Bachelor's curricula.

Conclusion. The Digital Humanities Workspace (DHW) at Utrecht University serves as a knowledge hub that cultivates interdisciplinary collaboration, co-creation and co-innovation for public value. The DHW aligns with broader societal and academic UU goals, aiming to enhance digital literacy and democratic engagement. By blending expertise from various disciplines, the DHW supports the integration of Digital Humanities into research and teaching.

The workspace is an interesting example of how libraries can evolve and position themselves as facilitators of educational and research innovation in the Digital Age. However, given the academic and administrative context of Utrecht University and its library, the DHW appears to be a natural fit for Digital Humanities, which benefits from such a structured framework. It remains unclear, though, whether Digital Humanities inherently requires the living lab structure and a user-centric approach, or if the DHW itself represents an innovation that elevates the teaching of Digital Humanities. By their respective definitions, living labs and Digital Humanities are an ideal pairing, but whether this match is necessary or simply advantageous within the specific UU context is yet to be fully understood.

10.4 Library Living Lab, Sant Cugat del Vallès- Barcelona, & BiblioLab Network, Province of Barcelona(ES)

Author: David Gago Saldana (UAH)

Intro: The Library Living Lab (L3, onwards) is a collaborative space for experimentation and co-creation based in the Miquel Batllori public library in Sant Cugat del Vallès, Barcelona, Spain. It opened in 2015 as an example of a grassroots movement initiative that was fueled by a strong commitment to innovation and technology. It inspired the BiblioLab initiative, which is aimed at extending the L3's impact to a network of 227 libraries and 11 mobile libraries, offering services to 5.5 million citizens (including 2.8 million registered users) across the Province of Barcelona. Thus, all libraries in the Province of Barcelona 'have become potential labs'. Scalability is, beyond any doubt, the main value-added of the project.

Method: The fieldwork was nurtured by two online interviews (an L3 expert and the L3 co-founder), the observational findings from the EU Co-Val project, and academic articles published on this case.

Objective and legitimacy: According to the L3 and the BiblioLab network, the public library is a versatile environment where diverse communities, defined as communities of practice, can coexist. BiblioLab epitomizes the role of libraries as community builders and 'boundary objects'. Public libraries are also understood as 'spaces of tension between stability and transformation'. The role of public libraries against authoritarian drifts should not be overlooked either.

Co-creation: co-creation & co-innovation in L3 & Bibliolab are deeply connected to technology. The project ExperimentAI, a citizen experimentation initiative centered on AI targeting various audiences, professional groups, and associations is a case in point. Finally, as for the methodologies to spur co-creation, the main message is that no magic formulas exist for the 'best-case methodology'. A good piece of advice is to analyze carefully the context where the library operates to design and implement contextual-aware methodologies.

Competencies of staff: As emphasized by Gago and Rubalcaba (2020) soft skills (e.g., trust and reliability, flexibility, and versatility, or active listening) are the front-end employees' skills that are most demanded. Other content/methodological skills related to adaptability to change, analytical skills, decision-making, or management skills seem to be also relevant.

Front-line employees at L3 and BiblioLab are often unaware of what a living lab is and do not receive specific training for it. Cultural and personal type barriers persist, which calls for a major responsibility of public institutions to provide training and appropriate tools to catch up with the most needed digital transformation-based skills.

The role of users: Co-creation & co-innovation are nurtured by the involvement of individuals from different backgrounds (i.e., scientists, artists, entrepreneurs), which transform the library into a creative space and enlarge the concept of 'community of interest'.

Users are empowered to make decisions regarding the co-design//co-innovation aspects of projects undertaken. Users are usually tagged as alpha, beta, gamma, and delta according to their expected



role in co-creation. This approach promotes inclusivity, by allowing all users, regardless of their level of involvement, to participate in activities.

Involving users/citizens in co-creation processes from the outset (i.e., the design process of co-creation practices) is key to achieving successful results. L3 & BiblioLab's main challenge in co-creation is to merge citizen science with citizen-centered innovation to produce powerful social transformations. Finally, a major challenge for citizen engagement and co-creation is the lack of project sustainability and long-term vision.

Other stakeholders: L3 and BiblioLab are the result of an interinstitutional collaboration involving stakeholders coming from the quadruple helix. All stakeholders, although some exceptions, apply, were and continue to be actively engaged in decision-making processes.

Network enabler: The L3&BiblioLab are not spaces for accessing, retrieving, and disseminating knowledge, but also hubs for collective knowledge creation and sharing. As centers for innovation, they allow different groups to maintain their unique practices while continuously evolving. The success of the BiblioLab program suggests that the innovative model developed in the L3 can be expanded to encompass all 227 public libraries in the Barcelona Province Library Network. What is more, BiblioLab enables the creation and consolidation of a distributed infrastructure of innovation and knowledge creation, thus allowing gathering the peculiarities of the different libraries that make up the network in terms, for example of social and demographic characteristics, as well as the map of alliances of each library.

Finally, a driving force that leverages the role of public libraries as innovation intermediary/network enablers is stability. Stability serves as a bridge between the various communities of practice, enabling them to pursue shared objectives, and is also relevant in the institutional sphere. The difficulties that L3 has faced in growing are largely associated with the lack of ownership of some public entities involved.

Public value: the main public value created, has to do with 'democratizing access to knowledge and innovation'. On the other hand, public value is also obtained in terms of inclusion: the new range of experiences offered opens the Library. The BiblioLab experience has pushed these effects forward, since it has contributed to the systemic change of public libraries of the Provincial Council of Barcelona. Libraries are reconfiguring their functions and uses, promoting their role as agents of social transformation, and fostering their educational role and support for scientific and technological innovations. In this sense, the experience of the L3 has served as inspiration and has been a catalyst for the emergence of initiatives related to the creation of open innovation environments in other libraries within the network.

Success criteria: Setting up effective metrics for performance evaluation remains a critical yet unresolved issue. Nonetheless, a conceptual protocol has been established to delineate actions, where activities adhere to a framework comprising three components: (Social) challenge, Action, and Return.

This framework, aligned with the principles of Responsible Research and Innovation (European Commission, 2016), addresses aspects such as awareness, transparency, and openness.

Some projects have been monitored and managed on a more ad hoc basis, with certain key performance indicators (KPIs) associated. Regrettably, the prevalence of one-shot projects hinders the implementation of scalable metrics. This means that the logic of 'pilots' should be abandoned, and 'prototypes' should instead take the lead.

The importance of implementing flexible frameworks to measure outputs, outcomes, or impacts (as traditional metrics might not be appropriate to capture the full number of effects unleashed by co-creation), was also raised. Finally, despite the pioneering character of L3 & BiblioLab, the attempts to communicate and disseminate the results achieved have failed so far. The implementation of robust metrics might help remove this weakness.

Conclusion: The L3 and the rest of the libraries making up the BiblioLab network have emerged as more than just physical spaces; they have become catalysts for cultural innovation, community empowerment, and collaborative learning. Its journey from conception to implementation reflects the collective vision and determination of residents, researchers, and policymakers alike, demonstrating the transformative power of grassroots initiatives in shaping the future of public services and community spaces. BiblioLab has also identified innovation spaces and opportunities that have served as a reference for other libraries of the network.

10.5 MediaLab- Tabakalera, San Sebastián- Basque Country (ES)

Author: David Gago Saldana (UAH)

Intro: MediaLab Tabakalera (MT, onwards) is a public library located in a popular place just 10 minutes away from the San Sebastián city centre. The library is located in an old tobacco factory now refurbished and currently home to different recreational and cultural spaces. MT is the result of merging UBIK (Tabakalera's Creation Library) with HirikiLabs (CitizenLab) in 2019. This step, which involved challenges and uncertainties, introduced a two-tier structure: the library serves as the gateway to individual creation, while the lab acts as the gateway to shared creation.

Method: Five different interviews were undertaken (four corresponding to front-end employees and one to a manager profile). Numerous observational insights were collected during the session, which took place on the 28th of February 2024.

Objective and legitimacy: The context and framework of libraries influence the final goal but, in all cases, libraries should devote their time to think about what 'they want to be and become'. In the case of MT, the motto is 'learn, create, and enjoy'. More than a library, MT is identified as 'library-type services', where users' basic goals might be to learn, experiment, meet other people with similar interests, create prototypes, or enjoy playing video games. The concept of a library as a 'third space' (i.e., a place 'you make your own') has also been advocated. Libraries are also 'catalysts for things to happen'. Furthermore, to be useful, libraries should accompany societies in their fast process



of transformation, and at the same time, societies should be engaged in the process of definition, design, and maintenance of the library.

Co-creation: Co-creation & co-innovation at MT have involved the introduction of agile methodologies, even though cultural resistance has emerged. On the other hand, technology is used as an instrument to spur co-creation, but not as an end. Essential tools like digital cameras and laptops are provided to users, extending their experience beyond the library's physical space. The key to co-creation is fostering a co-creation-friendly atmosphere with hands-on, holistic activities rather than traditional workshops. Additionally, MT promotes a flexible, non-interventionist approach, believing in communities' self-organization skills. Staff intervention is minimal, occurring only when necessary. User feedback is fluid, with tools like a suggestion box to enhance interaction. The library spaces are designed to promote interaction, with movable bookshelves and open areas encouraging informal knowledge sharing.

Despite its progress, co-creation is still evolving, and observing user behavior helps tailor activities. Co-creation involves continuous testing, adjusting, and user engagement, with small gestures, like offering coffee, significantly enhancing user participation.

Competencies of staff: According to the interviews, the concept of transversality in front-end employees is key. This involves shifting from traditional library roles to more heterogeneous profiles (e.g., from cultural management or the arts fields). This interdisciplinary approach allows the breaking of silos and enhances the library's ability to address new challenges. Other key skills include flexibility, permeability, and malleability. Transparency and dialogue with users are essential for managing needs and expectations effectively, fostering trust, and ensuring a user-centred experience.

The role of users: Co-creation and co-innovation are central to MT. Early workshops, such as those at HirikiLabs, involved users in co-designing lab furniture and tools, fostering a sense of ownership. Engaging a diverse set of citizens with varying needs and expectations is crucial for successful co-creation. MT avoids pigeonholing to encourage knowledge transmission, often providing intergenerational dialogue and favouring inclusion.

Providing various tools and activities is essential for users to understand and contribute to shared community-based knowledge. Open Groups play a significant role, in researching specific topics to generate knowledge, design projects, and strengthen the community. Some open groups examples are textile experimentation, citizen astronomy, or open design/open furniture.

Other stakeholders: Co-creation & co-innovation are also participated by the other components of the quadruple helix (Public Administration, Academia, and the business sector), and this is deemed important to break institutional endogamy. The ACTS line of work provides the appropriate arena to introduce other stakeholders on board.



Network enabler: MT's core mission is to act as an intermediary and network enabler, fostering synergies with various institutions and knowledge nodes. This requires a significant mindset shift for libraries from 'command and control' to becoming facilitators without predetermined outcomes. Flexibility is essential, even if it means embracing discomfort and acknowledging that not all initiatives will succeed. Libraries should function as catalysts for innovation, allowing for serendipitous discoveries.

Creating communities is a major goal, necessitating ongoing dialogue with various community-oriented institutions to enhance collaboration. MT ACTS (Art, Science, Technology, and Society) initiative exemplifies this approach by promoting interdisciplinary experimentation and strengthening relationships with international cultural, technological, and scientific centres to address social challenges.

Public value: The library's fundamental role is to foster an environment where public value can emerge from the synergies created by the interaction of various ecosystem participants. MT adds a unique layer of cultural creation in San Sebastián, a city already rich with libraries and cultural spaces. Its strategic location in a working-class neighborhood near major transit stations enhances its role in social cohesion and integration, particularly with the increasing flow of immigrants. MT has demonstrated its commitment to inclusion, gradually changing perceptions through various inclusion projects. Public value is perceived as shared value. Initiatives such as the Dutch 'cafe repair' model, where volunteers gather monthly to share and exchange technical skills while promoting the 3Rs of the circular economy, exemplify this approach. Public value crystallizes in complementary and reinforcing forms, as in the Garagune initiative (i.e., handicapped people involved in MT activities, boosting inclusion and sustainability).

Success criteria: Measuring co-creation is one of the biggest challenges. The creation of metrics is a pending issue, even though some experiments have been carried out so far. A major one is the experience developed with CIVIMETRO three years ago. Interviews and observations also highlighted the challenge of developing adaptable metrics for different contexts and projects, enabling a 'plug & play' approach. Furthermore, there is a notable lack of metrics for intrinsically intangible aspects (e.g., the value of a community-created playground). Metrics based on the theory of change framework show promise, as they capture the personal impacts of co-creation initiatives on participants. Metrics are also crucial for reinforcing institutional accountability since the public value created is often not well understood.

Conclusion: The main challenge seems to implement the concept of good governance in MediaLab in the sense that more transparent and participatory processes should be settled down to empower users. Participation is key, but decision-making is even more important. MediaLab is an evolving phenomenon that is constantly changing, though its experimental, open, and social components remain ever-present.

10.6 Dokk1, Aarhus (DK)

Authors: Lars Fuglsang & Anne Vorre Hansen



Intro: Dokk1 is the new main library in Aarhus, part of an urban development at the harbor. The iconic building is described as a large, connected space with a central ramp and stage, accommodating diverse activities, art, reading areas, and bookshelves. It is described as a “covered urban space.” Its glass facades and an open polygonal format are designed to emphasize that it is meant for people rather than just housing books.

The library staff emphasize their shared commitment to design thinking, user involvement, and innovation as key approaches. The municipality’s library strategy states that Dokk1 should aim to address complex societal themes by inspiring citizens, fostering community interactions, and promoting learning and democratic participation. The staff describes their active engagement in various projects and knowledge exchange at both national and international levels to advance these approaches.

The Dokk1 library model is enabled by long-term investment, strategic planning, and professional dedication, involving employees, citizens, schools, businesses, and cultural entities. Staff are organized into teams with the autonomy to initiate activities within different themes. Dokk1 serves as a public space for everyone, using activities and books to create an open, accessible learning environment that supports democracy and community.

Method: We conducted semi-structured interviews with 2 managers, 6 employees, and 3 partners/users. We also analyzed 12 documents and made observations during a three-day visit. The analysis revealed several themes, including challenges related to the library as an experimental site for citizen engagement.

Objective and legitimacy: Respondents agreed that the core role of public libraries remains to support education, enlightenment, cultural participation, and democracy. Even before its launch, Aarhus Public Libraries created a transformation room in its then-main library to test future library concepts with citizen involvement. The library adopts a people-centered approach, emphasizing that it is built for and with people, not just for bookshelves. Libraries are seen as empowering institutions with a strong historical foundation and high credibility. They are viewed as allies of citizens rather than municipal entities. Their legitimacy comes from being unique, inclusive spaces where diverse groups can meet. Interviewees emphasized that to stay relevant and inclusive, libraries must continuously experiment with and develop new formats.

Co-creation: Interviewees described that they emphasize co-creation and citizen involvement, encouraging patrons/users to be active participants rather than passive consumers. This shift in mindset began around 2005, focusing on engaging citizens as co-producers of library services. Sponsored by the Bill & Melinda Gates Foundation, Aarhus Public Libraries developed a design thinking toolkit for libraries together with Chicago Public Libraries and IDEA as an open source tool for libraries across the world. Aarhus Public Libraries train library staff in many countries in using the methods. Interviewees say that they integrate design thinking with a curatorial approach to ensure



relevant and legitimate citizen engagement. Co-created activities include exhibitions, events, and organizing the library as a citizens' platform for the UN's Sustainable Development Goals. The library aims to empower citizens while maintaining alignment with its purpose and code of conduct.

Competencies of staff: The role of front-end employees has evolved from the traditional librarian role to a more relational one. Staff now focus on developing learning opportunities, co-creation with citizens, events and projects, working in teams such as the adult and children's teams. The library's design, with glass facades and open spaces, encourages public interaction and freedom of movement. Employees come from diverse backgrounds, including media science, education, anthropology, and political science. Recruitment prioritizes relational skills and a multitude of competences over specific educational backgrounds, emphasizing interaction with citizens and partners. Staff enjoy autonomy and are trained in design thinking to foster a user-centric approach. However, this new style can be challenging and difficult for some, which means that there needs to be a constant focus on maintaining and renewing the skills as well as onboarding new staff.

The role of users: The interviews highlight the importance of citizen involvement in co-creation and co-innovation. Management and employees emphasize a common approach using design thinking, and staff have engaged partners at various levels for years to develop this approach. As a political organization, and as stated in the municipal library strategy, Dokk1 is required to address complex or "wicked" societal problems through user engagement. The ideal role for users is to be collaboratively engaged in experimental activities. However, in some cases, this approach leads to exclusionary activities, as not everyone feels comfortable or has the resources to participate. The library also plays a crucial role in supporting democracy by facilitating dialogue and active citizen involvement. Events are organized to ensure equal participation and address democratic challenges like inequality in participation, the tone of public debate, and the feeling of not being heard by politicians. While Dokk1 aims to provide a space for free and equal access, fostering a sense of community and democratic engagement, it is recognized that not all citizens are attracted to this type of environment.

Other stakeholders: The library staff say they collaborate with 330 partners, contributing to around 140 activities. These partners are categorized into network partners (informal, personal connections), service partners (regular collaborators), and strategic partners (key institutions like schools and museums). Library staff act as facilitators and network builders, fostering partnerships and organizing activities. Examples include collaborations with Aarhus University on children's programming and LEGO projects, as well as various informal, personal-level projects with other universities. These partnerships are seen as crucial for maintaining the library's relevance, versatility, and legitimacy.

Network enabler: Dokk1 is described as a network enabler, facilitating interactions among citizens from diverse backgrounds. It aims to be an active participant in citizens' lives, creating learning communities and serving as a social and work space. The media lab at Dokk1 helps citizens develop digital skills and share their stories on relevant platforms. Additionally, Dokk1 connects with other libraries globally through initiatives like the Next Library concept, fostering collaboration and sharing



innovative ideas. Dokk1 acts as an innovation and network intermediary, supporting citizenship and democratic skills while promoting future-oriented library solutions.

Public value: Public value in the context of Dokk1 is described through various value lenses including democracy, citizen learning and empowerment, creating a supportive environment for citizens, being a bulwark against fake news, balancing individual and social value in all activities, maintaining their traditional roles while also experimenting with new formats and activities, ensuring equal access and an inclusive and conversational environment. Overall, Dokk1 is described as a multidimensional institution that attempts to co-create public value with citizens, promote democracy, learning, and inclusive conversations. However, attracting a diverse range of citizens remains a challenge, since not all citizens are comfortable with this approach.

Success criteria: Success criteria for public libraries are described in terms of both direct and indirect outcomes: Direct outcomes include attracting diverse users, offering varied formats, ensuring user satisfaction, increasing visitor numbers, and fostering user ownership. These can be quantified by metrics like daily visitors, activities, partnerships, and user diversity. Indirect outcomes focus on the broader societal impact, such as strengthening democracy, enhancing access to knowledge and culture, promoting citizen engagement and dialogue, and addressing issues like technological literacy and fake news.

Conclusion: The case study on Dokk1 illustrates how libraries navigate paradoxes, balancing historical and emerging templates. Dokk1 is evolving with new media, novel spaces, new skills, and networks, and is focusing on people rather than books. However, they maintain the historical role and institutional legitimacy of the library as an institution and political organization. Dokk1 has required significant investments and long-term planning. It is competing with traditional models and under-resourced libraries. Emphasis on design thinking and staff mindset contrasts with the classical librarian role and is exclusionary to some librarians and citizens. The case of Dokk1 exemplifies these transformations, contributing to the broader discourse on library innovation.

10.7 Rentemestervej Library, Copenhagen (DK)

Authors: Lars Fuglsang and Anne Vorre Hansen

Intro: The Library Rentemestervej is part of Copenhagen Libraries, which beside the main library (Hovedbiblioteket) consist of 20 libraries located in different districts of the city. Copenhagen libraries are to some degree highly centralized, as a department under the Municipal Culture and Leisure Administration dictates which books are to be available on the shelves and which book exhibitions are to be presented. The Library Rentemestervej is both a library, a culture centre and a citizen service centre.

Method: The case study is conducted as qualitative research, consisting of seven in-depth interviews and document studies. The data set was subject to thematic analysis.



Objective and legitimacy: The library comes with a long history. 25-30 years ago, it was established as a Neighbourhood centre as part of urban renewal in the neighbourhood 'Nordvest', which was then a deprived area in the Municipality of Copenhagen. Later It became a cultural center, and in 2011 it re-opened with the name the Library Rentemestervej, but still understood as a both a local cultural centre and a library.

Co-creation: the role of the front-end employee differs, as the library staff have a more active role in educating and pushing knowledge, whereas the cultural centre staff have mainly focused on creating a space for the users to bring to life. Again, the fusion of professions and cultures are somewhat still evident in the case of the Library Rentemestervej. Thus, there seem to co-exist two opposing narratives about co-creation and co-innovation: that users/citizens often propose ideas, and that very few activities are triggered and driven by user/citizens.

Competencies of staff: The staff does a lot of relational, or even social, work – a dimension mentioned across interviewees. Other times the employees find the library to be more of a service house. There are two aspects at stake at the Library Rentemestervej relative to role and competences: 1) the experience with merging two different employee groups with different professional identities (librarians and employees from the cultural centre), and 2) the current division of the personal into two groups; logistics employees and hosts.

The role of users: There is an openness and sensitivity of employees, which is conditional for realizing the initiatives citizens take. An interesting aspect in this regard is process facilitation – not only relative to operationalize a specific idea, but also to help citizen/users to develop ideas or their own. Users can participate in numerous cultural events and library event organized by staff.

Other stakeholders: Besides citizen collaboration, the library also has more formalized collaboration with organizations. A key partner is the café tenant and moreover, the library collaborates with what they refer to as 'obvious' actors e.g., the local Youth club, a nearby municipal sport and activity centre and FOF, the largest evening school in the Denmark. Also, various associations have formal engagement at the library – such as The National Reading Association, an association for parents to multilingual children and the Danish Textile Guild.

Public value: In the policy documents the notion of 'what the public values', that is, the individualistic view, is more predominant than public value understood as 'what is of value to the public'. In the perspective of the employees the two dimensions of public value are more outspoken. The relational and social value to the individual citizens is interwoven with the societal value of social cohesion, literacy and democratic potential. Also, most employees seem to share the underlying assumption of culture and literature as key in interpersonal understanding and widening of horizons. Which most employees see as crucial in times of silo-thinking and an increased echo chamber effect.

Network enabler: As a local library and cultural centre, the library potentially creates networks between different users attending these events and between library staff and users. Networks are also



created in relation to other stakeholders. As a cultural centre, Rentemestervejen Library is one of several cultural offerings in the area under the same management and as such an important gathering point for users. However, there are also many users who like to use the library as a place to read and study.

Success criteria: Key success criteria are that users feel comfortable in the library, that many local citizens use the library, that they can access different materials and participate in different activities. The library staff would like to have more opportunities to use their skills and knowledge rather than being subordinate to the central library.

Conclusion: The library is developing in a context of both quite radical new schemes (digitalization, multi-function house) and traditional schemes of books and reading as key skills in a democratic society. There is an inherent paradox in the urge to be innovative and stay relevant, while at the same time be anchored in and legitimized by historical roots – and hence display a kind of system maintenance. New governance structures emerge as new employee groups are entering the library, e.g., logistic personnel and guards. But also, there is a contestation of which competences are relevant in the future, e.g., role of employees broadens into facilitators and conveners of both knowledge giving, sharing, but also creation. Lastly, the overall history of the library in democratic societies, and hence the democratic ethos of citizens they are supposed to support is still a strong marker for being legitimate as institution.

10.8 Frederiksberg Library, Frederiksberg (DK)

Authors: Lars Fuglsang & Anne Vorre Hansen

Intro: Frederiksberg Library is located in Frederiksberg Municipality, an enclave within Copenhagen, the capital of Denmark. Despite its small spatial size, Frederiksberg is the fourth largest city in Denmark. The city and municipality is also one of the wealthiest in Denmark. Within the framework of the Danish library act, the municipality of Frederiksberg has adopted a strategy for the library in which the library is to promote literature, enlightenment, education, and cultural activities. The library is seen as a politically led organization. The interaction of citizens, politicians and administrators is important for adapting societal changes, offering books, music, movies, and digital resources and engaging citizens in new more interactive ways. However, Frederiksberg Library's strategy focuses on culture, education, reading, and community.

Method: We conducted semi-structured interviews with 2 managers and 2 users. We also analyzed 6 documents and made two observations of employees and users. The analysis revealed a number of themes concerning the library as an experimental space and space for social innovation.

Objective and legitimacy: Frederiksberg Library serves as a community hub, focusing the promotion of literature, enlightenment, education, and cultural events, particularly in supporting reading skills. It is seen as a politically led organizations influenced by politics. As civil society has come to play a larger part, the library has developed an understanding of the role of volunteers and how to encourage and appreciate them. Technology has enabled innovative approaches to the library's collections. Despite



these changes, books and literature remain central, with efforts to promote books and inspire reading with a view to how this is done in English bookstores.

Co-creation: While the library collaborates in a seamless way with municipal administrations and politicians, it also fosters co-creation where citizens can initiate activities. It has adopted a role as a community center, supporting various volunteer activities and citizen initiatives.

Competencies of staff: New skill sets are required for staff to support and handle these evolving activities, emphasizing relational and process-oriented skills. Some interviewees described different instances where the library have been drawn into a broader values debate, or where citizens have used the library for activism, requiring special skills on the part of staff to manage potential conflicts and balance interests.

The role of users: The future library is envisioned as a community hub with a strong focus on digital access, while keeping literature and reading central. It must strategically involve users to stay relevant and adapt to societal changes. The library is seen as crucial for democracy and it increasingly has to incorporate volunteerism and citizen involvement.

The “Danas Library Lives” group in one of the Library’s branches, with a small budget of 20,000 DKK, organizes activities to strengthen the branch’s role as a community space. The group, consisting mainly of resourceful middle-aged citizens, navigates the political landscape to develop strategies and gather support. Despite the challenges of engaging the 20-50 age group, the group remains committed to making the library a social, democratic space. The library is seen as a microcosm of the modern library, not just for books, but as a space for experience and inspiration. It functions as a “third place” (Oldenburg, 1989) between home and work, fostering community cohesion. The group aims for more co-creation and more volunteer-driven activities.

Other stakeholders: Being a platform for debates, balancing citizen voices, and navigating political strategies is a core focus of the library. A notable example is the drag show at Frederiksberg Library during “Kulturnatten” in March 2023, which sparked a national debate about what libraries should promote. Interviewees emphasize the need for clear procedures and staff training to handle such events, advocating for the library as a platform for debate rather than initiating it. The library should accommodate diverse voices, even those that challenge traditional norms. Interviewees also highlight the importance of proportionality when giving space to minority voices and maintaining the library’s role as a democratic institution.

Network enabler: As part of the budget cuts demanded by politicians, the library proposed to close the branch Danasvej library. The main library had long been favored because the city is considered small enough for the central library to be easily accessible to all citizens. In response, the activist group “Danas Library Lives” was formed to argue for the cultural and economic importance of the branch library, collecting testimonies and involving families. A detailed report and a visit by the city council



underlined the importance of the library and led to a reversal of the closure decision. The branch library became a social network, encouraging community involvement and volunteerism.

Success criteria: The library wants to be used as much as possible by the citizens of Frederiksberg with a special focus on children and their reading and literacy skills. It will function as a community hub, focusing the promotion of literature, enlightenment, education, and cultural events. It should also be a platform for debate and should try to balance different views and interests. The library should function as a politically led organisation that operates according to the wishes and requirements of politicians and within the framework of legislation.

Conclusion: Frederiksberg Library maintains a classic library atmosphere centered on reading and books, but also emphasizes digitalization, citizen involvement, and innovative activities to stay relevant. It serves as a platform for debates without initiating them and, while being a politically led organization, it generally has support from politicians. The library is seen as a peaceful institution that supports literacy and provides a safe public space. However, it can attract controversy if perceived as a hub for activism or if certain groups dominate its space. The library uses volunteers to create an input network for its activities but lacks an output network among citizens. An exception is Danasvejens Library, where citizen activism, supported by local politicians, saved it from closure, creating a limited output network. This activism highlights the library's potential as a network enabler, albeit in a restricted sense.

10.9 LILLIAD Learning Center Innovation, University of Lille (FR)

Author: Christine Liefoghe (ULILLE)

Intro: The modernization of the main libraries of the three universities of Lille (science and technology, law-health, literature and arts) began thanks to a national university modernization plan (2008). The renewed science library opened in 2016 and was renamed "Lilliad Learning Center for Innovation". Following the merger of the 3 Lille universities in 2018, Lilliad became the flagship of the renovation of the 3 other University libraries, located on several sites in the Lille metropolitan area. The report includes analysis of the "common documentation service" (SCD) which drives the organizational restructuring and service innovations, focusing on UX design methods and the co-creation/co-production of services. The aim is to draw inspiration from the model of "third-place" libraries, a place of life and conviviality.

The analysis shows that Lilliad/SCD ULille is a library type A: the managerial team has developed a long-term strategy for creating public value, for students, academics but also citizens. Domain-specific service innovations are linked to these objectives and, in a context of managerial reorganization of the university, innovations are mainly driven by librarians and even more by SCD managers. Thus, patrons (students, academics or employees) participate in the innovation process through surveys, observation of their practices, flash interviews, test of new services or even focus groups. Service innovation in Lille University libraries is based on an analysis of users' experience. An approach called User Experience Design has been adopted to improve or create innovative spaces and services for

training and research. A new manager specializing in design thinking and user experience has been recruited to assist the managers and the librarian in their mission.

Method: We interviewed 3 top managers, 4 managers, 5 employees, 6 researchers, 2 external partners (entrepreneurs). 2 focus group sessions were organized with students. In addition to flyers, 8 paper documents were analyzed, as well as 6 reports of the Documentary Steering Committee. Other digital documents (internal documents) were also sent by the respondents to illustrate certain elements mentioned during the interviews.

Objective and legitimacy: The modernization of Lille's University libraries is necessary to provide better working conditions as well as resources for international excellent research. The buildings are being renovated and the interior spaces are being reorganized on the Third Place model (different services and ambiances). Innovation is at the heart of the strategy, not only to help ULille laboratories and researchers, but also to be more efficient in the services offered by the libraries to the user community. A human-centered methodology (UX design) is increasingly applied to improve the service offering of the libraries. Quality (for users) and excellence (for international competition) are at the heart of the strategy.

Co-creation: The term co-creation is rarely used to talk about service innovations carried out for more than ten years within Lilliad and then the SCD. The concept of Living Lab is little known. Nevertheless, the interviews show that (Top) managers and even SCD employees apply the principles and methods of what is called co-creation or co-production of innovative services. The increasingly frequent use of UX design methods (led by a dedicated and trained manager) is also claimed in the official SCD documents.

Competencies of staff: Lilliad is a place for experimenting with new ways of working in libraries, at the service of innovation and users. Other SCD libraries are less advanced in developing staff skills, although some new services were first invented outside Lilliad. Methodological transfers take place between these 4 libraries to train staff. Skill development follows several paths. 1) Recruit managers or employees with specific skills (UX design, Open science, i.e.). 2) "On-the-job" training, sometimes with the help of external service providers, which allows managers to obtain internal promotion; 3) Internal training organized by the SCD, or even with other university services, to enable employees to improve their relational or creative skills.

The role of users: The user is at the heart of Lilliad's strategy (since 2016) and of the SCD of the University of Lille (since 2018). Staff and various departments are gradually trained to co-create or improve services. Surveys, observations and chatbot services allow to regularly collect user feedback. There are, however, 3 levels of user consideration. 1) (Top) managers "think about users" when designing services; 2) middle managers interact with employees to help them work with users; 3) employees or managers who work partly in "public service" (front office) respond to the need of users and participate with them in the co-creation of services; 4) the creation by the SCD, with managers and employees, of training for users in order to better use the new library services.



The role of other stakeholders: Different types of stakeholders exist, given the institutional complexity of the SCD ULille and the need to call upon collaborations to improve or create services.

- 1) External service providers are required for specific IT services. Services are defined by the SCD, developed by service providers but tested with users.
- 2) An innovative service in one of the 4 libraries is extended to the others through collaborative work to create by mutual agreement a new service with and for all students or academics.
- 3) Some SCD offerings require collaboration with other University services.
- 4) Some innovations are the result of collaborations with other French universities, or via collective workshops (negotiations with publishers, development of Open Science, etc.).

Network enabler: The SCD ULille is at the heart of a network of partners at different scales. At the external strategic level, (Top) managers are integrated into national or international networks to improve practices (Open science, etc.). They also negotiate with other libraries in the Lille metropolitan area. At the internal strategic level, managers exchange with other university administrations while the COD (document orientation committee) brings together representatives from all university libraries and education and research departments, to discuss collections. At the operational level, managers and employees build networks with some academics to co-create new services or improve existing services.

Public value: The public value produced by the University Libraries (SCD) falls into several fields.

- 1) The promotion of collections for heritage purposes or to promote Open Science through collaborative work between the SCD and University research Department.
- 2) The value created by the “naming” (marketing) of buildings (“Lilliad”, i.e.) or of some services (CollEx, LilloNum, i.e.) to improve the identification of resources.
- 3) A public value based on a UX design approach, in the name of the humanist values that the University wishes to promote.
- 4) Online access to knowledge is seen as a service to citizens, especially when the cost of books and scientific journals is increasing.
- 5) Collections can contribute to public value, by promoting critical thinking and “scientific literacy”, against fake news, populism or scientific disinformation.

Success criteria: The first criterion for success is library attendance (statistics, surveys): the success is such that the number of places available is insufficient despite the renovations. The second criterion concerns loans and consultation of documents, but the digitalization of the offer complicates the statistical analysis. The third criterion is based on the promotion of new services and user feedback (chatbot, requests for collaborations, etc.). Users’ expectations of these Third-Place libraries are such that the SCD must sometimes remind them of the rules for proper use of the buildings.

Conclusion: Documents and interviews show that innovation is at the heart of Lilliad’s strategy and then that of the SCD. If technological innovations were initially a priority (online collections, innovative teaching methods, etc.), the co-creation of services (digital or not) is now the priority. Despite the



proliferation of new services and the communication of the SCD to users, focus groups and interviews show that few of these innovative services are really known to the university community. This is the challenge to be met in the years to come.

10.10 “La Petite Bibliothèque Ronde” (PBR), Clamart, Paris Urban Region (FR)

Author: Christine Liefoghe (ULILLE)

Intro: La Petite Bibliothèque Ronde (PBR) is the successor of La Joie par les livres, a children’s library created in 1965 in Clamart, France, whose aim was to promote children’s access to literature and culture in disadvantaged suburbs of Paris. The library is also famous for its original architecture made of nested concrete cylinders but providing a child-friendly environment. Although classified as a historic building in 2009, this building closed its doors in 2017 for renovation and the PBR had to temporarily move to a nearby commercial space. This smaller space was a challenge to reorganize the collections, the workshop spaces and to invent new services, such as “on-site” activities with children and public institutions.

The associative library, initiated by private funds in the 1960s, was a pioneer in the promotion of high-quality children’s literature, initially considered a minor genre. The library is also at the forefront of digital literacy and multimedia services, tailored to children’s education. The library is renowned for its progressive educational approach, promoting children’s autonomy and engagement through various activities, including theater and exhibitions. Its innovative pedagogy focuses on three audiences: very young children, children aged 4 to 12 and, more recently, young people under judicial protection. The library continues to evolve in response to political and cultural interest in children’s literature in France, collaborating with various artists but also with librarians, publishers, educators and other professionals. Due to its specific expertise (reading, cultural mediation, etc.) and its unique identity among French public libraries, the PBR has developed training workshops for professionals who are not used to approaching early childhood or disadvantaged children through reading books as an opening to other activities. This service offering allows the PBR to extend its influence well beyond the neighborhood in which it has been established for 60 years.

Method: We interviewed 1 manager, 4 employees, 2 external partners. During an observation session, we also spoke with 2 parents and 2 children. In addition to flyers and booklets, 21 documents were analyzed, either activity reports, book chapters or academic articles.

Objective and legitimacy: The legitimacy of La Petite Bibliothèque Ronde is called into question every year, even though it claims public legitimacy by offering free services accessible to all, by being a pioneer in children’s literature and reading. Its associative nature, unlike public libraries, creates this paradox. The PBR asserts its legitimacy as a public service because it was one of the first libraries dedicated to children in France and was an example to inspire public policies. Since 2018, PBR’s legitimacy has been strengthened by collaborations with public institutions and the growing impact of its social and cultural initiatives. Its influence now extends beyond the local neighbourhood and includes to national and international projects. Its growing reputation and impact reinforce its legitimacy with public institutions which regularly seek its expertise.



Co-creation: The PBR library emphasizes co-creation and co-innovation, engaging children as active participants in cultural experiences and creative workshops. Children interact with artists to explore imagination and improve observation skills. In the 1980s, PBR was a pioneer in exploring digital tools but the library now focuses on digital literacy to foster collective creativity. The role of PBR staff is to facilitate co-creative workshops, acting as mediators between children, artists and other participants. Co-creation with children at PBR is not rigid, but rather a flexible and imaginative process of discovery and interaction, to build self-confidence and foster artistic and cultural engagement.

Competencies of staff: The library employs 12 people (part-time and full-time, on permanent contracts or temporary contracts for specific events). Some librarians live in the neighborhood, thus fostering trust with families less involved with art and culture. Following the move of the library in 2018, the new director reorganised the roles of staff, assigning specific responsibilities such as communication, early childhood, cultural action, ICT, heritage and mediation. Thanks to the PBR specific services (reading to early young children, cultural mediation, etc.), the skills of employees are not solely dedicated to traditional skills. Adapting to new services and co-creation processes has been at the heart of its missions since 1965. If new skills are needed, the PBR library mobilizes its internal and external partners to organize workshops or to invent a new training offering.

The role of users: The engagement of users (children, parents, childminders, educators) in co-creative activities has also been at the heart of the PBR's mission since the 1960s. Children are naturally open to curiosity and participation in activities, even if, at the beginning of a workshop, they may be destabilized by the suggestion of an artist or another type of partner. Librarians play a mediating role in helping children overcome their initial resistance. The observation session revealed that children's curiosity and observation capacity is surprising even if they do not seem interested in the cultural proposal. Adults are more reluctant, but PBR expertise aims to break down social and cultural barriers, or the professional resistance of educators to a creative offer. After this first step, the experience gained during a workshop gives these adult users the desire to continue the co-creative adventure to become in turn co-producers of innovative services.

Other stakeholders: The PBR library collaborates with five types of stakeholders: funders (Type 1), institutions offering project-grants (Type 2), institutions that request the PBR's expertise (Type 3), artists and cultural partners (Type 4), and professional associations (Type 5). The co-creation process depends on the type of partnership, with the PBR playing a central role in understanding needs, coordinating resources and evaluating projects. These partnerships enable innovative initiatives, such as promoting reading among children under judicial supervision or creating specific training for education professionals and other public institutions.

Network enabler: Without partnership, the PBR library would not exist and would not be able to offer activities, or develop new services. Private and then public partners have been behind of this associative library since the 1960s. Various external partners regularly participate in activities and



creative workshops to complete the skills of the PBR staff. Thanks to its specific expertise, the PBR library has extended its partnership to different public institutions and to other cities and regions.

Public value: The library founded in 1965 in Clamart aimed to provide access to books and culture for disadvantaged children in working-class suburbs: the public value was to combat social and geographical inequalities. Promoting the quality of Children's literature, the aim was to foster peace and open-mindedness among children and citizens. This expertise is a value recognized by the French State and integrated into national institutions (BNF). In Clamart, a political debate about the future of the library highlighted the tensions between two definitions of "public value", between public services and public-private partnerships. The new PBR association defended its role in addressing broader societal challenges in socio-economically deprived areas.

Success criteria: The PBR success is measured by quantitative indicators allowing the monitoring of outputs (number of books, workshops, etc.) and outcomes (attendance, new reader cards, etc.). Since 2018, the library has improved its qualitative and quantitative indicators to assess user engagement and the PBR impact (social networks, partnerships, etc.). These criteria are useful for adapting services to user needs, guiding future strategies and securing public and private funding by justifying the role of an associative library.

Conclusion: The PBR library is a particular case study in France because associative libraries are not a very widespread model in view of the number of public libraries in all territories thanks to public policies in favor of reading and books. La Petite Bibliothèque Ronde is also specific for its innovative service offering and its co-creative pedagogy. This expertise is a model to help the transition of public libraries to serve children's development

10.11 Helsinki Central Library Oodi, Helsinki (FI)

Authors: Kirsi Hyytinen (VTT), Tiina Tuominen (VTT) & Paul Windrum (VTT)

Intro: Helsinki Central Library Oodi is located at the city center of Helsinki. Oodi, established in December 2018, transcends the traditional role of libraries by functioning as a living lab for cultural, social, and technological activities.

Helsinki, the capital of Finland, is characterized by its functional urban planning and emphasis on public services. With a population of approximately 650,000, it plays a central role in Finland's political, educational, and cultural spheres. According to the municipal strategy the city is noted for its focus on sustainability, digitalization, and the development of inclusive public spaces. Among these spaces, the Oodi Library stands out as a key example of Helsinki's approach to combining civic architecture with community engagement, serving as a multifunctional public facility designed to meet diverse social and educational needs. As a flagship library Oodi holds a distinct role and serves as a symbol of the library's bold stance in areas such as reinforcing democratic values. Oodi's primary roles are aligned with Finland's Library Act (2016), which outlines key objectives for public libraries including promoting literacy, lifelong learning, active citizenship, and cultural diversity.



Method: The study is based on an analysis of seven interviews with library managers and employees, one interview with a collaborating partner, and documentation and other information about library law library and city strategies, development activities, and services.

Objective and legitimacy: The objectives and legitimacy of public libraries in Finland, are grounded in the Library Act of 2016, which outlines their fundamental roles in promoting democracy, freedom of expression, lifelong learning, and equality. This legislation reflects extensive consultation within the library community, emphasizing libraries as vital public spaces that foster active citizenship. Libraries strive to be inclusive, providing services that cater to diverse groups, including families, immigrants, and those at risk of social exclusion. Interviewees highlighted the traditional mission of libraries in promoting literacy and cultural education while evolving to meet emerging needs, particularly in developing technological skills amid increasing digitalization. As living labs they facilitate open dialogue, allowing various perspectives and events that support freedom of expression. The growing emphasis on libraries as safe public spaces highlights their significance in ensuring equal access to knowledge and resources, making them essential players in the democratic landscape of society.

Co-creation: Co-creation is fundamental to Oodi ensuring it meets the diverse needs of its users and partners. From the outset, residents were actively involved in the library's development, contributing ideas through initiatives like the "Dream" campaign, which gathered over 2,300 suggestions. Co-creation methods, including participatory budgeting and direct community engagement, have shaped the library's services, such as the introduction of 3D printers. Although Oodi has made significant strides in engaging the public, interviewees recognize the need for ongoing improvement in participation. Oodi's emphasis in co-creation has shifted from the application of specific co-creation methods towards using the insights gained from everyday interactions between personnel and users. The library embraces community self-management, encouraging grassroots input to inform service development continuously.

Competences of employees: Library professionals at Oodi are expected to possess a diverse skill set to effectively support the evolving roles of libraries in education and literacy. In addition to traditional literacy promotion, employees must assist citizens in navigating new technologies and digital skills. The removal of degree requirements in library studies has led to a more varied workforce, including cultural producers, media professionals, and educators. This diversity allows staff to guide users across different services, fostering co-creation through communication and dialogue. Oodi's unique work culture emphasizes community self-management, requiring teamwork, emotional intelligence, and problem-solving skills to navigate its dynamic environment.

The role of users: Citizens play a central and continuous role in the co-creation and co-innovation processes at Oodi Library. From the outset, citizens' input shaped the library's design and services, exemplified by initiatives like the "Dream" campaign, which collected over 2,300 ideas. Participatory budgeting allowed citizens to influence funding for pilot projects, such as 3D printers. Oodi's spaces, particularly the second-floor workshop Versta, facilitate grassroots involvement, encouraging feedback and collaboration. While citizen engagement is prioritized, challenges remain, including

barriers to service access for certain groups. Oodi's mission emphasizes inclusivity and ongoing development based on public input, reflecting its evolving nature.

Other stakeholders: Stakeholders, including partners and citizens, play a crucial role in Oodi's co-creation process, shaping library services and functions. From its inception, Oodi involved partners to address community needs, employing a communication designer to facilitate dialogue. Collaboration with regional libraries fosters idea exchange and feedback. External organizations, such as municipal services and third-sector actors, co-develop content and use Oodi as a platform for engagement. Additionally, international partnerships support shared solutions in library transformation. While Oodi collaborates with health services during covid crises, it emphasizes maintaining boundaries to preserve its core mission of promoting democracy and freedom of speech.

Network enabler: Oodi functions as an essential innovation intermediary and network enabler, promoting collaboration among citizens and partner organizations. By prioritizing co-creation from its inception, the library engages users throughout planning and development. As a free, accessible public space, Oodi fosters democratic participation and social interactions, particularly in its second-floor workshop area, Versta, which serves as a living lab for innovation. The library encourages self-directed activities and supports diverse community initiatives, facilitating the emergence of new content and networks. Organizations from the third sector enhance these efforts, making Oodi a vibrant platform for spontaneous gatherings and creative endeavors.

Public value: Public value in public libraries is understood as a multifaceted concept encompassing several key themes. Libraries uphold democratic principles by ensuring free access to information and fostering civic engagement. They serve as inclusive spaces for community dialogue, promoting social cohesion among diverse groups. By empowering citizens through participatory initiatives, libraries encourage active involvement in decision-making and service co-creation. Additionally, they function as cultural and educational hubs that promote literacy and lifelong learning, while providing access to technology and resources. Libraries also prioritize sustainability, transparency, and mental well-being, adapting to the evolving needs of society and reinforcing their essential democratic role.

Success criteria: The success criteria for citizen engagement at Oodi Library include: 1) Inclusive Participation: Engaging diverse user groups to meet community needs. 2) Co-Creation Processes: Actively involving citizens in development stages to foster ownership. 3) Feedback Mechanisms: Continuously gathering input through social media, feedback boxes, and interactions to adapt services. 4) Community Self-Management: Encouraging grassroots idea generation and service development. 5) Partnerships: Collaborating with third sector organizations to enhance offerings. 6) Flexibility: Adapting services to changing community preferences. 7) Collaborative Spaces: Creating environments for collaboration and innovation. 8) Focus on Social Value: Promoting social connections alongside traditional library services.

Conclusion: Public libraries, exemplified by Oodi Library, play a vital role in co-creation and citizen engagement by promoting inclusive participation and actively involving diverse stakeholders in



developing services. They foster democratic values, social cohesion, and community dialogue, while also providing collaborative spaces for innovation. Feedback mechanisms and community self-management enable libraries to adapt services based on user input. Partnerships with third sector organizations enhance offerings and resources, emphasizing flexibility and adaptability to meet evolving community needs. Ultimately his engagement is crucial to the ongoing transformation of public libraries, ensuring they remain relevant, responsive, and vital hubs that contribute significantly to community well-being and resilience in a changing society.

10.12 Makerspace at Oodi as a Living Lab, Helsinki (FI)

Authors: Kirsi Hyytinen (VTT), Tiina Tuominen (VTT) & Paul Windrum (VTT)

Intro: This section presents a case study from Finland, focusing on the Makerspace at Oodi Library as a Living Lab (task 3.3). Oodi (see case 12), located in the city center of Helsinki and established in December 2018, transcends the traditional role of libraries by acting as a hub for cultural, social, and technological innovation.

A standout feature of Oodi is its second-floor Maker Space, which exemplifies the library's role as a living lab. This space provides public access to advanced tools and technologies, including 3D printers, laser cutters, sewing machines, audio-visual production equipment, and digital design software. The Maker Space serves as a hub for hands-on experimentation, supporting both individual and collaborative projects.

Aligned with Helsinki's emphasis on lifelong learning and community engagement, the Maker Space offers resources and workshops that empower citizens to develop new skills and actively participate in technological and societal advancements. As a result, Oodi functions as a vital community hub, integrating educational, technological, and social dimensions to meet the evolving needs of the city's residents.

Method: This study is based on an analysis of seven interviews with library managers and employees, one interview with a collaborating partner, as well as documentation on library law, city strategies, and Oodi's development activities and services.

Objective and legitimacy: Oodi Library, including its Maker Space, aligns with the Finnish Library Act (2016), which emphasizes promoting literacy, lifelong learning, democracy, active citizenship, and equality. The Maker Space exemplifies Oodi's mission to provide equal access to information and empower citizens by offering free access to advanced technological tools such as 3D printers, laser cutters, and media production equipment. This space serves as a tangible manifestation of the library's role in promoting digital literacy and technological competence, meeting modern societal demands for inclusivity in the knowledge economy. The Maker Space, in particular, breaks down barriers for those who might not otherwise have access to costly creative technologies, further legitimizing Oodi's place as a democratic public service. For example the 3D printers in the Maker Space are available to all users, fostering a space for learning new skills, no matter the user's background or experience.

Co-creation: Oodi's Maker Space plays a critical role in the library's co-creation and co-innovation initiatives. The library actively engages the community in designing its services, and the Maker Space



itself was shaped by citizen input collected through participatory initiatives like the “Dream” campaign and participatory budgeting. For example, the development of the space, including the inclusion of 3D printers and other equipment, was based on public demand. During the planning process of Oodi Library, a participatory budgeting initiative was launched, allowing citizens to express their preferences for services and technologies. As a result, many community members indicated a strong interest in having 3D printing technology available. This feedback directly influenced the decision to integrate 3D printers into the Maker Space, ensuring that the library’s offerings reflect the desires and needs of its users. Additionally, co-creation is continuously fostered in the Maker Space, where users not only utilize the tools but also contribute ideas for new services and projects. Oodi’s co-creation practices have evolved, shifting from formal feedback box methods to using insights from everyday interactions between staff and citizens. This model supports grassroots innovation and continuous service development.

Competences of employees. Library staff working in the Maker Space need a broad set of competences to support the diverse services and technological tools available. Oodi’s staff is no longer limited to traditional library roles but must also function as digital facilitators and tech mentors, guiding users in learning how to operate advanced equipment like laser cutters or audio-visual production gear. For example, staff at the Maker Space must regularly assist users with many diverse and complex machinery like sewing machines and laser cutters, ensuring that these tools are accessible to a broad audience, even those without prior experience. Additionally, the staff must possess strong interpersonal and communication skills to engage in continuous dialogue with users, as co-creation and service evolution rely heavily on everyday interactions.

The role of users: Citizens are at the heart of the co-creation process at Oodi, and the Maker Space is one of the key areas where this engagement takes place. From the initial planning stages to everyday interactions, citizens continuously shape the services offered. The Maker Space invites users to contribute ideas for workshops, new tools, and improved services, fostering a sense of ownership of the Library and active participation. Citizens’ input was instrumental in shaping the Maker Space, where the introduction of media production tools like audio-visual equipment was based on user demand. This bottom-up approach ensures that the space evolves according to the actual needs of the community.

Other stakeholders: The Maker Space benefits from extensive collaboration with various stakeholders, including private companies, third-sector organizations, regional libraries and other municipal sectors such as schools and kindergartens. These partnerships bring valuable resources, knowledge, and content to the Maker Space, enriching its services. For example, third sector organizations like Martta provide workshops on repair sewing in the Maker Space. The Martha Association is a Finnish non-profit organization well-known for its dedication to educating the public in matters of home economics. Founded in 1899 The “Marthas” are often turned to for advice on food, nutrition, gardening, the environment, family finances and consumer issues. By combining their expertise with the tools available at Oodi Maker Space they help customers for example in repairing and sewing clothes and thus supporting developing skills related to sustainable lifestyle.



Network enabler: The Maker Space serves as a crucial network enabler at Oodi, bringing together individuals, communities, and organizations to collaborate on creative and technological projects. The space facilitates spontaneous encounters between users, allowing them to share knowledge and ideas, and supports self-directed learning. For example, groups of young people regularly gather in the Maker Space to work on projects such as crafts and digital design, facilitated by the open and collaborative environment. This underscores the role of the library in enabling grassroots innovation. The library itself acts as an innovation intermediary, providing the public space and infrastructure for users to experiment, innovate, and create together.

Public value: The public value of Oodi's Maker Space is multifaceted, incorporating the promotion of democratic access, lifelong learning, and cultural and technological empowerment. By offering access to advanced technologies like 3D printers and audio-visual production tools, the Maker Space democratizes the creative process, allowing citizens to engage in innovation that would otherwise be inaccessible due to cost or technical complexity. For example, the availability of media production tools enables users to create podcasts, videos, and other forms of digital content, fostering creative expression and cultural participation, which are critical aspects of public value. The space also fosters social cohesion by providing a venue where individuals from diverse backgrounds can collaborate and share knowledge.

Success criteria: The Maker Space at Oodi is successful in fostering citizen engagement and co-creation due to several key factors. 1) **Inclusivity:** Ensuring that a diverse range of users, regardless of their technical skills or background, can access and use the Maker Space tools. 2) **Collaborative Spaces:** The Maker Space provides flexible, accessible environments where users can gather, work on projects, and exchange ideas. 3) **Feedback Mechanisms:** Oodi continually evolves its services based on feedback collected from users, through both formal channels like feedback boxes and informal daily interactions with staff. By adapting the space and services based on the community feedback, Oodi Library ensures that the Maker Space remains responsive to user needs.

Conclusion: Oodi's Maker Space exemplifies the evolving role of public libraries as inclusive, co-creative spaces that foster digital literacy, community engagement, and innovation. It caters to a wide range of users, supporting their diverse needs while staying true to the library's mission of promoting **democracy and education**. The Maker Space at Oodi Library not only supports individual creativity and skill-building but also acts as a platform for co-creation, innovation, and community building, making it a key part of the library's mission to address the evolving needs of society.

10.13 Vantaa City Library, Vantaa (FI)

Authors: Tiina Tuominen (VTT), Kirsi Hyytinen (VTT), & Paul Windrum (VTT)

Intro: The Vantaa City Library represents a large municipal library located in the capital region of Finland. Multiculturalism and multilingualism are increasingly relevant characteristics of Vantaa, as 25% of the population has a mother language other than Finnish or Swedish. The population is expected to grow in the next decades, mostly owing to migration of young people to Vantaa. The



library includes 11 local branches, located across the municipality. It is firmly oriented towards identifying and serving the specific needs of its local residents, aiming to strengthen literacy and inclusion in these communities.

Vantaa City Library collaborates closely with other departments within the city to address common challenges, in addition to which it leans on a networked collaboration mode across its 11 branches. As a living lab, it is characterised by this collaborative mode and by several means to listen to and understand the needs of the local citizens, both via specific co-creative events and in everyday interactions between staff and users.

Method: This study is based on an analysis of seven interviews with library managers and employees, one interview with a collaborating partner, and documentation and other information about library strategies, development activities, and services.

Objective and legitimacy: the respondents saw that libraries have critical role in facilitating literacy and social equality, as well as nurturing cultural heritage in the changing and complex world. The informants perceived literacy to be seriously threatened in today's societies, which fortified the importance of libraries. In addition, the informants stressed the central role of libraries in facilitating social inclusion, both via offering a safe and neutral public space, as well as via the competence-enhancing services that are available for everyone. In Vantaa, one of the main issues related to these two objectives, literacy and inclusion, was to support multilingual families and their engagement in the Finnish society.

Co-creation: Co-creative approaches were based on the premise that the library must serve the needs of the local communities and act as the part of the entire city organisation in serving the citizens. Co-creation was conducted in active collaboration with schools, kindergartens, healthcare districts, and residential and other associations. In development projects, citizens were targeted via specifically designed approaches such as service design methods, surveys and questionnaires, as well as via daily interactions. Distinct to the library was the broad volunteer network including 80-100 residents contributing to library activities, in addition to which citizens were encouraged to organise their own events in library premises. In this sense, citizens were mainly consulted in broad development projects, but they also possessed power to influence local small-scale activities.

Competencies of staff: the informants believed that the library staff at Vantaa was oriented towards co-creation and aware of the importance of listening to the users. However, it was difficult to estimate whether the co-creative mindset and skills had been internalised by the entire personnel. To support staff competencies, the library had appointed a staff member that gained education in and advised others in co-creation, in addition to which project workers with other expertise (such as pedagogical education) were hired to development and service projects.

The role of users: The library employed various methods to listen to users and involve them in service development activities. Due to the size of the library and its different development activities, these methods were applied case-by-case. The methods included service design approaches, surveys and



questionnaires, and daily interactions. The users were also encouraged to act as volunteers and use library spaces for their own activities. However, most larger development projects involved users mostly as the consultants of their needs, ideas and preferences.

Other stakeholders: As discussed above, the library collaborated intensively with other city departments, aiming to support the common goals (such as literacy and inclusion) with library's distinct societal role, spaces and expertise. In addition, it collaborated with several associations to support its outreach activities and general objectives. The collaboration could include offering spaces for the stakeholders, offering library services in the stakeholders' spaces, informing citizens jointly of the services of the library and/or stakeholders, or jointly creating and producing services.

Network enabler: Via the networked mode of collaboration characterised above, the library not only gained new competences and resources from its partners and citizens but also helped others develop their competencies. This was notable in the services for children, where library staff helped kindergartens, schools and welfare service providers to support the literacy skills of their customers.

Public value: The informants considered that the free services and spaces enable or secure the societal inclusion and safety and support economic development and resilience via the development of individual skills and awareness. The findings indicated that the library generated private and public value in several interconnected pathways, which were challenging to disentangle from one another. The private value discussed in the interviews include increased wellbeing, literacy and other skills, possibilities for self-expression and experiences, safety, sense of belonging to the society/community, and improved relations within families and communities. These outcomes also generated public value such as inclusion, equality, economic development, safety, strengthened democracy, and resilience both at local and societal levels.

Success criteria: The interviews only indirectly addressed success criteria in the form of the objectives of library services. These objectives relate closely to the notions of public and private value discussed above. Generally, citizen engagement aimed to support inclusivity and equality at Vantaa: the library staff repeatedly mentioned the importance of providing services that are tailored to the distinct needs of the local communities. Implicitly, the library was considered to accomplish this task in collaboration with other city departments. In addition to these long-term outcomes, the staff regularly observed visitor numbers, the number of new library cards created in different events and other numerical information, as well as user feedback.

Conclusion: The case of Vantaa City Library shows the continuing relevance of libraries' fundamental task, that is, to nurture equality and literacy in society. The task is ever more important in multilingual contexts where new immigrants strive to become integrated into society and internalise local habits and possibilities. However, while the fundamental task of a library remains the same, the case shows how libraries may address the task using novel interactive and co-creative practices, demonstrated in the increasing number of events and services, as well as in the relevance of community interaction and co-innovation processes.



10.14 Vienna Libraries, Vienna (AT).

Author: Doris Schartinger (AIT)

Intro: The Vienna Libraries are a metropolitan area library network. The Vienna libraries network consists of a main library and 37 branch libraries across the different Viennese districts. The main location of the Vienna Libraries is a landmark building. It was designed by Ernst Mayr, officially opened in 2003 and won the "Landmark Libraries Award" in Leuven/Belgium in 2004. Vienna library services have evolved from the past in many ways, they perform their services at the junction of different ecosystems. When considering their events and activities, in the time period considered roughly half of them have no connections to books/reading as such.

Method: The case study builds on different forms of data, empirical observations, 10 interviews, meetings or onsite exchanges in the library, 5 participants observations of events taking place in the library, as well as numerous archival material such as annual reports, newspaper archives, observation of their social media channels and blog posts.

Objective and legitimacy: The goal of the new library building was to use the library as a placemaker in locating it between very diverse districts. However, it also signals accessibility in every aspect by being situated above an underground station and providing immediate access to Vienna public transport and Austrian rail via the nearby rail station.

Co-creation: Co-creation while operating a library is different from co-creation in the setting-up phase. While operating a library, co-creation is often limited by the existing space and has more of an iterative and trial-and-error character. While in the setting up phase, co-creation can be more organised and structured. Iterative co-creation seems to be common when a library is already in place, it means formulating a goal while being deliberately non-specific (e.g.: get more senior citizens into the library); guesstimate upfront what could attract the targeted audience (e.g.: content, time slot); observe (who is coming, why); and co-create adaptations on the go. Co-creation has risks, like placing too much focus on the articulated and observable, even measurable. Not all people use their voice, or dare to use their voice. In focussing on people who are used to voice their needs, co-creation may be prone to benefitting those who are affluent and resourceful in the first place.

Competencies of staff: When libraries offer new types of services, they have to complement their resources and competences. Employees are key in bringing the ecosystem of local NGOs and associations together with the library. Librarians are perceptive as citizens themselves, they experience or see societal tensions and have ideas of how they can contribute to solving them. As active citizens, they engage in activities that promote and sustain democracy. Beyond mere ideas, libraries provide one setting to implement new things that make a difference and enhance societal participation, democratic values, inclusion, well-being. Thus, they act as a nutrient medium for ideas based on active citizenship.



The role of users: The outreach and community approach is perceived to be coming very much from within the organisation of the Vienna libraries and seen as increasing. The main form of approaching different kinds of users today is via forming alliances with local associations and local NGOs that represent very different social groups. Together with the local organisations, libraries can then offer various services that the library alone could not offer, but that the associations and NGOs alone could not offer either. Looking at the list of events by the Vienna libraries it shows that about half of them refer to the core role of libraries and are events around literacy and culture (S). 50 events in the time frame pertain to language learning, inclusion and social counselling and represent a more recent understanding of library services (I). 30 events are related to creativity and entertainment (C). However, these new services need new partners in the form of local organisations.

Other stakeholders: Collaboration with outside partners takes mainly place in events/services beyond their core of literacy and culture. The Vienna libraries can be seen as *orchestrators of ecosystems*, with criteria for orchestration like available resources, reputation of partner organisation, or fit with target group strategy. The decisions are framed by national and municipal institutions/policies, as well as the macro environment and international influences like the IFLA Manifesto, the sustainable development goals (SDGs), as well as developments in other libraries, as well as the EU level.

Network enabler: The previous points entail that the Vienna Libraries staff is often well-networked in diverse communities, associations, NGOs, which leads to ideas for new services, particular events or media acquisitions. Although library personnel today have different job profiles and competences from previously, ecosystem partners help with complementing competences and resources. Especially in events and services around inclusion, a high proportion is done together with partnering organisations.

Public Value: Relating to public value of libraries, two basic patterns can be perceived with many nuances and aspects. One is *democratising access to knowledge, culture and entertainment*. This ranges from the historical tasks around books but should include console games. It increasingly gains importance to counteract commercialisation of rental systems. Libraries have an extremely important task here, namely to enable low-threshold access and to enable people to have access to knowledge, entertainment and culture who cannot afford these financial burdens, apart from the aspect of monopolising these areas. In the context of co-creation, this means that the library includes topics that are relevant for the local community. The local citizens, experts and authors are invited to contribute. The common benefit is then that there is a functioning local community, and the library, ideally, has a contribution here.

The second one is provision of *low threshold access to space, without obligation to consume*. Space is considered a central value proposition by the Vienna libraries as public space without obligation to consume seems to disappear. Space in turn is a central input for co-creating activities.

Success criteria: There is very little output and impact measurement. Visitor numbers are collected, otherwise there is no documentation, especially because of data protection. Counting tickets were



unique at the main library during Corona: It was mainly a ticketing system for seat planning, but not for all events

Conclusion: The Vienna libraries represent a grown and established network where the central library –award-winning at the time–is now in a 20 year old building which delimits and shapes its potential to engage in co-creation activities. This adds to recent thinking about co-creation that seems to have centered vastly on the setting-up phase of new and young libraries.

10.15 The C3 Library in Vienna, Vienna (AT).

Author: Dana Wasserbacher (AIT)

Intro: The case study of the C3 library examines its specific context and settings, exploring how the objectives influence the services provided, the library's networks and the involvement of its users, with a focus on co-creation of public value. The C3 Library in Vienna is a hybrid library, combining the characteristics of different library types in one place. It is not a conventional public library, though it is open to the general public and provides accessible resources for academic and non-academic audiences. Nor is it solely a research library, although its extensive collection of over 70,000 materials caters to the needs of scholars and researchers in global development, human rights, and sustainability. Likewise, while it shares some elements of a community library, such as its role as a forum for public engagement through workshops and events, it cannot be reduced to be a community library, rather a space where citizenship, policy, and academic discourse intersect.

Method: The case study builds on different forms of data, coming from nine different empirical observations: from two meetings, one radio events, one on-site exchange, three participant observations, one non-participant observation, and two interviews with library staff. Furthermore, archival material such as annual reports, newspaper archives, and blog posts was included.

Objective and legitimacy: Central to the goals and role of the C3 library is that it is anchored in the global and in the local. There are its thematic foci and the associate knowledge repository in combination with principles engaging with less affluent and less resourceful groups in the Austrian population, as well as new entrants into Austrian society and marginalised groups. They accomplish this on the basis of its vast networks, by being a place, providing information, offering education and learning, hosting encounters and events.

Co-creation: One important element of co-creation from the outset is that library services are defined roughly and then the finer elements of what will be done are elaborated together with the library community.

At the same time, "*co-creation*" as a *label* is a rather recent development, which entered the work context of the C3 library through EU projects. However, "*co-creation*" as a concept in terms of designing services in a participative and inclusive manner by integrating diverse perspectives is not at all new to the C3 library. When asked, they state in conclusion that they identify most with an approach of "*moderated co-creation*"



Co-creation is perceived to have its challenges. First, types of co-creation that strive to engage diverse people and to provide open formats are more difficult to implement because there are no standardised implementation processes. Second, a strong focus on visible or even measurable results of their initiatives is often an obstacle due to tight funding policies. This leaves little to no room for critical analysis and working on ideas for further co-creation activities. As a result, potentially relevant topics are often neglected or not taken up for co-creation activities.

Competencies of staff: In the C3 library the strong focus on participation as a process goal and vast expertise in participative methods of several library employees provides an important basis for educational initiatives. The C3 library employs highly qualified personnel and many academics. The competences at C3 differ from the traditional profile of a librarian, most of the personnel did something else before or have a different background. When they join the C3 library they often enter the Austrian library training (university programme) as an add-on.

The role of users: The C3 library supports, for example, young (**15+**) researchers (school students) with various services and offers to help them with their enjoyment and efforts to complete a pre-academic thesis. Hence, in contrast to early career research, this literally has a focus on teenage researchers, but would not exclude young students and later young academics. These include multimedia collections, free library cards for pupils, learning and working at the library (workspaces), content-related advice and support in literature research, workshops for groups, events for school classes, access to educational resources through the C3Bib+ platform, and topic sheets on international development to inspire research themes and questions.

Other stakeholders: Its hybrid nature is reflected in a highly unusual organisational set-up: The C3 library is framed by and embedded in a multifaceted organisational network that indirectly also extends to federal agencies, universities, non-profit organisations, and the church. The C3 library is operated by the three carrier organisations ÖFSE, Baobab and Frauen*solidarität and hosts a cooperation with two further organisations dedicated to development policy, namely the Paolo Freire Center for transdisciplinary development research and dialogical education and the Mattersburger Kreis für Entwicklungspolitik.

Public value: What is very specific about the C3 library is that they intend to make the local and the global meet, hence local population is key to overcome global challenges. This is palpable in all their services to young researchers. Hence, they support pre-academic theses that address global challenges in the realm of the C3 areas but encourage them to translate the topics in the particular contexts of the 15+ researchers. Hereby, the C3 explicitly aims to include and empower teenage researchers that do not represent the majority of society in Austria, but come from minority backgrounds, migrant families of different origins or marginalised groups in Vienna but also in Austria more general. The C3 living library particularly aims to connect the everyday realities of teenagers from diverse backgrounds to authors' contexts. The connection of a global challenge and local, even personal context is one of the criteria of the C3 award.



Success criteria: Mutual trust and respect of many different competences within networks builds the basis for co-creation. Several success criteria relative to innovation and co-creation can be identified

- Funding authority support: The funding authority places a strong emphasis on enhancing the visibility of the C3 Library (Personal Communication 2024).
- Thematic focus: The library's focus on global sustainable development, education, and women's and gender issues fosters co-creative activities and drives network and community building, as seen in the case of the loose network on the topic of decolonisation.
- Highly qualified staff: The expertise of the C3 Library's highly qualified staff, many of whom are academics and have expertise in participation, plays a crucial role in facilitating participation and innovation.
- Disruptive events: educational policy changes, such as the "Matura neu," serve as catalysts for new opportunities and initiatives.
- Stakeholder collaboration: NGOs and international development partners, rather than other libraries, drive service co-creation by organising events, such as book presentations, and by contributing individually to certain services at the library.

At C3 library there are no explicitly dedicated activities that include the assessment or measurement of co-creation in service provision. Nonetheless, sometimes in context of certain activities there are assessments in different settings being done, including a reflection on the ambitions and targets of the endeavour and feedback from users.

Conclusion: Overall, the C3 library intends to co-create public value by addressing three extremely challenging issues at once and in combination: First, C3 particularly intends to reach out to the population 15+, which is an age group particularly challenging to address. In the life cycle of library use, users normally drop off from age 14. Second, C3 specifically wants to address groups in society that do not belong to the local majority. Although these are very diverse, these groups include those that are characterised by particular difficult histories and may come from backgrounds that encounter (personal) thresholds when entering libraries and do not have positive connotations with schools and education. Third, addressing global challenges in the form of SDGs and thereby co-creating a local perspective on global problems is a major contribution. All three types of value seem to be particular challenging goals for a library. There are no fixed formats to achieve these goals and co-create public value – activities are therefore necessarily experimental and have to inform each other



11 Towards Cross-Case Comparison of Public Libraries as Experimental Spaces

Below we provide an overview of some preliminary key themes and insights extracted from the 16 cases, that provide a starting point for codification of the cases, pending further analysis:

Innovation and technology integration: Several of the reviewed libraries are integrating advanced technologies to make the library relevant. For instance, Helsinki Central Library Oodi and its Makerspace provide access to 3D printers, laser cutters, and media production tools, democratizing technology and fostering innovation. Similarly, the Library Living Lab in Sant Cugat del Vallès emphasizes technology-driven co-creation, engaging diverse communities in innovative projects.

Community engagement and co-creation: A common theme is the emphasis on community engagement and co-creation. Libraries like Dokk1 in Aarhus and Frederiksberg Library actively involve citizens in service development, striving for library offerings that are relevant and responsive to community needs. The Public Central Library of Veria also demonstrates high user engagement, using design thinking to co-create services with the community.

Educational and cultural hubs: Libraries are positioning themselves as educational and cultural hubs that require new skills and draw on professions that differ from the traditional librarian role. The library space is changing towards a more open and “free” space with many educational activities. The Public Central Library of Sparta and La Petite Bibliothèque Ronde focus on educational programs and cultural mediation, respectively, to support lifelong learning and cultural enrichment. Bibliotheek De Krook in Ghent serves as a hub for knowledge, culture, and innovation, promoting sustainability and education.

Adaptability and continuous learning. Staff competencies in these libraries highlight the importance of adaptability and continuous learning. For example, LILLIAD Learning Center Innovation at the University of Lille emphasizes digital literacy and user experience design, while MediaLab-Tabakalera in San Sebastián values flexibility and transparency in staff roles.

Public value and social inclusion. Public libraries are creating significant public value by promoting social inclusion and democratic engagement. Vantaa City Library focuses on literacy and inclusion, particularly for multilingual families, while Vienna Libraries provide low-threshold access to knowledge and public space, supporting social cohesion and democratic participation.

Challenges and limitations. Despite these transformations, these libraries face challenges such as limited financial resources and the need for specialized staff. The Public Central Library of Sparta and La Petite Bibliothèque Ronde both highlight the difficulties in fully harnessing technology and engaging communities that may be hesitant to embrace new ideas.



In analyzing these themes, we suggest that certain themes are prevalent in many, if not all, of the cases. Each of these themes are relevant to explore in more detail. These include the changing formats of:

- Space
- Professions
- Public value concepts
- Institutional frameworks
- Ecosystems
- Democracy and critical thinking
- Co-engagement and co-empowerment
- Co-innovation and co-creation
- New technology
- Management and leadership

The emerging formats are subject to experimentation. They are linked in various ways in the specific libraries depending on specific strategies and available resources. As such, they form new library practices and, depending on factors such as resources and skills, constitute different processes of experimentation with the library space and change. These processes of transformation manifest themselves in different ways across different libraries:

Paradoxical transformations:

- Some libraries are developing quite radical new schemes (using new media, new library spaces, new staff skills, new types of networks). At the same time, however, most libraries are subject to resource constraints, political constraints and institutional constraints relative to the historical role of the classical library.

There is an urge to be inclusive, activity-based and for all, and at the same time a risk of excluding people who want something different from the library as a public space.

Competitive transformations

- Some of the libraries studied (i.e., Dokk1, Oodi and de Krook) rely on municipal and other investments of money and time, long-term intensive planning, and the development of a shared mindset. As such, they compete with (and possibly outcompete) more classical libraries and those unable to invest in new buildings and services. The strong emphasis on changing staff attitudes competes with the more classic image of the librarian as an expert in books and traditional library roles.

Historical templates

- All reviewed libraries use the classical library as a frame of reference to legitimize their activities. This is important in a context where public libraries are often political organizations, subject to political decision-making at the municipal or state level. Libraries across Europe must ensure their sustainability within the framework of library laws (if applicable), municipal policies, library traditions, and user expectations..



- The overall history of libraries in democratic societies, and the democratic ethos they are supposed to support, remain strong markers of their legitimacy as institutions.

Emerging templates

- The library has evolved from merely a place to access materials. It is now an experimental space tackling complex societal issues and fostering civic engagement.
- In some instances, the role of the library as a hub for democratic and cultural participation surpasses the importance of the book itself.



12 Preliminary conclusion: the emerging new library template

We initially defined living labs as “multi-contextual and cross-sectoral experimental user-centred innovation processes with the aim of developing and/or improving welfare products, democratic engagement, services or processes based on the application of co-creation methodologies represented by transdisciplinarity.”

In the literature review, we found that libraries are described as living labs, particularly in terms of providing processual learning services, democratic engagement services, and space/place services.

The case illustrations largely confirmed the presence of these three aspects across cases but also highlighted some variations and challenges, such as insufficient skills, resources, and space, as well as biases related to the user groups attracted and the staff capable of fulfilling these new roles and practices. The development of new library formats and templates appears paradoxical and competitive, both enabled and constrained by historical formats, and highly contextual.

Our preliminary findings suggest that the library as a living lab is a “template” for new library services that can be “filled” in different ways. As living labs and experimental spaces, a dominant template for the emerging new libraries seems to be one of expanding the role and social reach of the library as network enablers and innovation brokers, encouraging libraries to broaden the scope of public value creation:

Libraries as network enablers: Most of the case libraries consider themselves or can be interpreted as network enablers between citizens and across citizens, professionals, volunteers and other stakeholders. Particularly, libraries enable citizens to connect with professionals, local organizations, educational institutions, third sector organizations and policy makers. Libraries present themselves as hubs where diverse groups can come together to share knowledge, resources, and ideas, thereby creating a supportive environment for community initiatives.

Key to libraries as network enablers include:

- **Facilitating collaboration:** Libraries provide spaces and opportunities for different stakeholders to collaborate on projects, share expertise, and co-create services. This often involves partnerships with local schools, universities, businesses, and non-profits.
- **Supporting innovation:** By offering access to advanced technologies and resources, libraries help individuals and groups to innovate and develop new solutions to local challenges. This includes providing maker spaces, media labs, and other facilities that encourage experimentation and creativity.
- **Promoting social interaction:** Libraries design their spaces to encourage social interaction and community engagement. This includes hosting events, workshops, and seminars that bring people together and foster a sense of community.
- **Acting as intermediaries:** Libraries often act as intermediaries between different actors and sectors, helping to bridge gaps and facilitate communication and cooperation. This role is crucial in engaging citizens in network that can address complex social issues.



Libraries' role in public value creation: Libraries play a multifaceted role in creating public value, which encompasses promoting education, democracy, social inclusion, and cultural enrichment. They are seen as critical institutions that contribute to the well-being and development of individuals and communities.

Key contributions to public value include:

- **Educational support:** Libraries provide access to a wide range of educational resources and programs, supporting lifelong learning and literacy. They offer workshops, classes, and other educational activities that cater to diverse age groups and interests.
- **Democratic engagement:** Libraries promote democratic values by providing free access to information and creating spaces for public dialogue and debate. They support civic engagement by hosting events that encourage community participation and informed decision-making.
- **Social inclusion:** Libraries strive to be inclusive spaces that cater to the needs of all community members, including marginalized and vulnerable groups. They offer programs and services that promote social cohesion and address issues such as digital literacy and access to technology.
- **Cultural enrichment:** Libraries contribute to the cultural life of their communities by offering access to a diverse range of cultural materials and hosting cultural events. They support the preservation and promotion of local heritage and provide platforms for artistic expression.



Part 3: Final results and implications of the case studies for policy and research

Part 3 is based on a cross-case analysis. It delves deeper into how the examined libraries experiment with libraries and library spaces. First, we present the results of the cross-case analysis across the set of topics investigated using the 16 full case reports. Next, we identify the stakeholders involved and their roles, including citizens, and provide recommendations for policy.



13 Cross-case analysis

This section presents a cross-case analysis, following Stake's (Stake, 2006) methodology, synthesizing insights drawn from the individual case reports. As outlined in Chapter 6 (Part 2), the cases were purposefully selected to reflect a wide range of conditions and contexts. This diversity enables the formulation of managerial and policy recommendations that are broadly applicable across different settings in libraries and municipalities. To ensure the practical relevance of the findings, managerial and policy recommendations were co-developed in collaboration with the project's stakeholder panel. Panellists provided feedback through iterative discussions in round tables which informed the refinement of both the conceptual framing and the practical implications. Their insights helped validate the applicability of the recommendations across different contexts and contributed to aligning the proposed approaches with real-world operational and policy environments.

Although each library studied is distinct, we identify three ideal types that represent recurring patterns across the cases: Classical Libraries (Type A), Locally Embedded Libraries (Type B), and Advanced Libraries (Type C). These typologies, introduced in Chapter 6, serve as analytical models rather than rigid classifications. In practice, many libraries exhibit hybrid characteristics, blending elements from multiple types depending on their local context, resources, and strategic priorities.

Type A: Classical libraries ideal type: These libraries embody the traditional ideals of education, enlightenment, and cultural enrichment. Their core activities revolve around books and reading, reflecting a commitment to enlightenment and education of citizens. While they gave activities that remind of "living labs," such as experimenting with reading activities, their services are shaped by political or strategic mandates that mostly prioritize their role as classical institutions. Guided by long-term strategic goals set by the municipality or other institutions that they belong to (i.e., universities), these libraries focus on creating public value through domain-specific innovations -- particularly in areas such as literacy and education. Although users can provide input, their influence is generally limited; the direction and development of these libraries are primarily led by professional staff and management.

Type B: Locally embedded libraries ideal type: Rooted in communities, these libraries, such as branch libraries or specialized spaces for children and families, serve as welcoming environments where citizens can gather, read, and participate in various activities. Their public value lies in fostering a sense of belonging and providing a safe, inclusive space tailored to the needs of their target groups. Driven by a strong community spirit, these libraries actively encourage citizen-led activities. However, they frequently operate with constrained resources and may at times be understaffed, which can limit their capacity to fully support their community.

Type C: Advanced libraries ideal type: Designed from the outset as experimental "living labs," these libraries are characterized by innovative architecture that emphasizes openness and human-centered design over traditional book-centric layouts. Their mission is to support both citizens and municipalities in tackling complex societal challenges -- such as enhancing democratic engagement through new service formats. Employing methodologies like design thinking and co-creation, these



libraries encourage deep citizen involvement and a strong sense of citizen ownership. Nevertheless, their focus on innovation may inadvertently cater to more active and resourceful user groups, potentially overlooking those who are less engaged or marginalized.

The analysis is structured around the key topics reported in the case studies, following the standardized case report template:

1. Understanding of public libraries' objectives and legitimacy
2. Interpretation and practice of co-creation and co-innovation (e.g., methods)
3. Role and competencies of front-line staff in co-creation/co-innovation
4. Role of users/citizens in co-creation/co-innovation
5. Role of other stakeholders (e.g., private actors, community organizations)
6. Libraries as innovation intermediaries and network enablers
7. Conceptualization of public value in co-creation/co-innovation contexts, including tensions between individual needs and the common good
8. Success criteria for citizen engagement and co-creation (e.g., outputs, outcomes, impacts)

Although the term "living lab" is not commonly used by the libraries reviewed, many of them are nonetheless described as innovative and experimental environments. These libraries often engage in the development of new services in collaboration with users and stakeholders, with the aim of supporting enlightenment, education, and cultural activities. In this regard, they can be understood as functioning -- albeit to varying degrees -- as living lab settings, contributing to the empowerment of citizens through participatory service development.

In the following analysis, we compare the three identified library types by referencing the individual cases. This approach ensures that the unique characteristics of each library are preserved, while also allowing for the extraction of broader patterns that define the three ideal models. The comparative framework, summarized in Table 10, highlights both the distinctiveness of each library and the shared features that underpin the typologies of classical, locally embedded, and advanced libraries.



Table 10: The libraries divided by type and topics investigated

Library Type	Library Name	1. Objective & legitimacy	2. Co-creation & co-innovation	3. Employee competencies	4. Role of users/citizens	5. Role of other stakeholders	6. Innovation intermediary/network enabler	7. Public value understanding	8. Success criteria
Type A	Public Central Library of Sparta, Greece	Education, culture, lifelong learning; evolving role; support personal/professional development; diverse services.	Engaging users, feedback integration; collaboration with external actors (local orgs, schools).	Evolving role for librarians; specialized IT; adapting to new tech.	Limited influence, but inform via 1-to-1 relations, observations, surveys; volunteers co-design/co-deliver.	American embassy (Sparta Tech Lab); schools; local companies; volunteers.	Connects creators/makers with innovation networks; facilitates project scaling.	Dual focus: Short-term local support & long-term nurturing of young generation; community hub; spiritual/intellectual upliftment.	LibQual questionnaires for quality; user satisfaction; stakeholder recognition; interest in AI for feedback.
	Frederiksberg Library	Community library; culture, education, reading, community focus.	Supports volunteer activities; supports citizen initiatives. limited as living lab.	Professional skills, library skills, relational skills.	Moderated active citizen participation.	Limited citizen-based input and output networks.	Network enabler: space for people to meet and exchange ideas.	Focus on culture, education, reading, community. also a generative platform for debate.	Platform for debate; attract citizens.
	Vantaa City Library, Finland	Local residents' needs; strengthening literacy and inclusion; literacy as fundamental skill for inclusion, equal opportunities; safe, free, neutral space; digital transformation impact; overlapping	Collaborative & networked development; listening to citizen needs (events, interactions); vision 2030 with 500+ participants; inclusion as key value; generates societal impact via small	Coordination for themes (gaming/music literacy, robotics, age groups); new competences from cultural services for event planning/citizen collaboration.	Strong orientation to local resident needs; including citizens in library & broader society activities; educating citizens on library role via outreach activities (lunches, fairs, schools).	Intensive collaboration with city departments (culture, welfare); various associations (activities, guidance, communication); HELMET network (capital region libraries); IFLA.	Networked service delivery; important partners within City of Vantaa (resource/competence accumulation); supports outreach.	Benefits for users linked to societal benefits/common good; free services enable societal inclusion, safety, economic development; literacy for wellbeing, equality, peace; addresses multilingualism.	Challenge in data collection (e.g., library card use after kindergarten); societal impacts via small individual steps; project-funded services use differing means for objectives.



Library Type	Library Name	1. Objective & legitimacy	2. Co-creation & co-innovation	3. Employee competencies	4. Role of users/citizens	5. Role of other stakeholders	6. Innovation intermediary/network enabler	7. Public value understanding	8. Success criteria
		services with other orgs.	individual steps.						
	Vienna Libraries, Austria	Metropolitan network; education (municipality) & culture (federal); "places to learn, meet, communicate"; low-threshold, barrier-free access; focus on children/youth; personal development, social participation.	Co-creation as participation via NGOs/associations; half events not book-related; new services need partners; employees as mediators; user-driven initiatives (crocheting, makerspaces); users as content providers.	Diverse job profiles; Ecosystem partners complement skills; Diversity of employees meets needs; social media/PR/events division well networked.	Active participation (smaller scale); Informally design library ideas; Participate in language learning events; needs met through diverse staff/orgs; users as content providers.	Local NGOs/associations (PROSA, StoP); University Language Centre; adult education; community nurses; municipal dept; Austrian library associations (BVÖ, ÖGB, Biblio).	Input networks (stable, long-lasting); output networks ephemeral, focus on enabling encounters; aims for stable relationships (storytelling, knitting); library as "placemaker".	Low-threshold access (knowledge, entertainment, culture); key democratic institution; place for different opinions/encounters; community center; bridge for information poor/rich; curated offer.	Focus on encounters; bringing diverse people together; visitor/use statistics.
	Lilliad Learning Center Innovation/SCD, University of Lille-France	Academic excellence (research, training); UX design for user-centered quality; open science vs. publishers; student success vs. international competitiveness; budget constraints.	UX design methods; Co-production of services; patrons participate via surveys, observations, interviews, focus groups, tests.	UX design specialist; diverse librarian roles (liaison, reference, storekeeper); new digital skills; traditional skills (bibliography, exhibitions); collaboration.	Students, academics, employees participate in innovation process; users (children, teens, adults) for diverse programs; librarians adapt to new info demands.	External IT providers; university departments; national consortiums (COUPERIN); artists/cultural partners; Public institutions.	Heart of partner networks (national, international, internal); fosters organizational innovations; network logic, complementarity; openness to city.	Heritage promotion, open science (transparent, inclusive, democratic process); branding through "naming"; humanist values via UX design; free online access for citizens; critical thinking against fake news.	Attendance (high, but space issue); loans/consultation (digitalization complicates); new service promotion & user feedback; monitoring policy (dashboards, turnover rates); evaluation for funding.



Library Type	Library Name	1. Objective & legitimacy	2. Co-creation & co-innovation	3. Employee competencies	4. Role of users/citizens	5. Role of other stakeholders	6. Innovation intermediary/network enabler	7. Public value understanding	8. Success criteria
Type B	Rentemester vejen Library, Copenhagen, Denmark	Multi-function house (library, cultural, citizen service); education & enlightenment for democracy; updating traditional role (beyond books); tension with commercial image.	Two narratives on co-creation; co-creation as participation via cultural center; less co-creation in the library section.	Relational/social work; staff split (logistics, cultural hosts, library staff); librarian identity pressure.	User-driven activities; employees facilitate/support ideas; citizens as "receivers".	Formalized collaboration s: café tenant; local youth club, sport center, evening school; various associations.	Municipal intermediary (other units/institutions); from employee view: should be enabling space for citizen action (e.g., book activism).	Relational/social value + societal (cohesion, literacy, democracy); culture/literature for understanding; tackling loneliness.	Strategic: quantifiable measures, efficiency; operational: qualitative criteria, relevance; challenge efficiency ("slow browsing"); visitor growth vs. loan decline; equity (different services for equal access).
	La Petite Bibliothèque Ronde (PBR), Clamart, France	Associative library; pioneer in children's literature/culture for disadvantaged; digital literacy; progressive education (autonomy, engagement); legitimacy questioned by funding/status; Recognition by French State.	Innovative pedagogy; Training workshops for pros; Partnership-dependent co-creation; Co-creating programs for young people under judicial protection; Discussion-based.	Skills beyond traditional; Cultural mediation, digital tools, early childhood; Learning specifics for diverse groups (e.g., judicial protection).	Very young children, children, young people under judicial protection (end-users); Parents, childminders, teachers, educators (intermediary users); Engagement challenging for some groups.	Funders (private/public); Project-grant institutions; Institutions requesting expertise; Artists/cultural partners; Professional associations.	Extends influence beyond local; Indispensable for new services; Mobilizes partners; Position depends on project leadership; Offers innovative services in various territories (unlike public libraries).	"Right to culture/reading" for disadvantaged; Fostering child development/self-confidence; Helping families (social capital); Freedom, open-mindedness, peace; Expertise recognized by State; Debate: "public services" vs. "services to public".	Quantitative indicators (books, sessions, workshops, partners, training days); Outcomes (attendance, reader cards, loans); Impact (spatial expansion, awareness, social media, publications).
	MediaLab-Tabakalera, San Sebastián	"Library-type services" (learn, experiment, create, enjoy); community	Merged UBIK & Hirikilabs; two-tier logic (individual vs. shared	Multidisciplinary team.	Empowering users; engaged in definition, design, maintenance.	Town Hall, Provincial Council, Basque Government;	Pioneering space; influenced by various international	User empowerment; "library-type services"; communities;	Successful merger/operationa lization implied.



Library Type	Library Name	1. Objective & legitimacy	2. Co-creation & co-innovation	3. Employee competencies	4. Role of users/citizens	5. Role of other stakeholders	6. Innovation intermediary/network enabler	7. Public value understanding	8. Success criteria
		creation; "third space" concept.	creation); ACTS for interdisciplinary experimentation.			other cultural institutions; international influences.	models; "technological side of Tabakalera".	agora space; "learn, create, enjoy".	
Type C	Public Central Library of Veria	Free access to knowledge/services; lifelong learning, community engagement; dynamic community hub.	Responsive to user needs; summer camp conceived from needs, volunteers involved.	Multifaceted role (communications, fundraising, networking); humanistic social task.	Supports growth/learning; design thinking involves citizens; mobile library for diverse groups.	American Embassy; Stavros Niarchos Foundation; volunteers; external sponsors.	Innovation intermediary/network enabler.	Multifaceted: free access, workshops, lifelong learning; nurtures critical thinking, democratic citizens; preserves local heritage.	High program attendance; mobile library positive response; need for long-term impact measurement; financial limitations.
	Dokk1, Aarhus libraries, Denmark	"Covered urban space," meeting place; support education, culture, democracy; people-centered ("for and with people"); continuous experimentation.	Emphasizes co-creation and citizen involvement; citizens as co-producers; design thinking toolkit; global training (Next Library).	Committed to design thinking; staff autonomy; mindset shift from classical librarian role.	Active participants, co-producers; involved in testing future concepts, design; democratic participation; diverse groups.	Schools, businesses, cultural entities, ordinary citizens; municipal services; politicians; civil society groups.	Innovation/network intermediary; supports citizenship/democratic skills and self-expression through media; fosters diverse initiatives such as world room for citizens.	Democracy, citizen learning/empowerment; supportive environment; bulwark against fake news; balancing individual/social value; equal access; experimental approach.	Direct outcomes (users, satisfaction, visitors, partnerships, diversity) quantifiable; indirect outcomes (strengthening democracy, knowledge access, engagement, problem-solving, SDGs).
	Oodi, Helsinki Central Library	Multifunctional living lab; Finnish Library Act (literacy, lifelong learning, democracy,	Community actively engaged in design ("dream" campaign, participatory	Beyond traditional roles; digital facilitators, tech mentors; teamwork, emotional	Central & continuous role; input shaped design/services (2,300 ideas); influence funding (3D printers); grassroots involvement; inclusivity prioritized.	Partners & citizens crucial; communication designer; regional libraries;	Essential innovation intermediary; promotes collaboration; free/accessible space; fosters	Democratic role; community dialogue/social cohesion; empowerment via participation; symbolic	Inclusive participation; co-creation processes; feedback mechanisms; community self-management;



Library Type	Library Name	1. Objective & legitimacy	2. Co-creation & co-innovation	3. Employee competencies	4. Role of users/citizens	5. Role of other stakeholders	6. Innovation intermediary/network enabler	7. Public value understanding	8. Success criteria
		equality); equal access to tech (3D printers, laser cutters); breaking barriers.	budgeting); continuous co-creation (staff-citizen interaction); self-management.	intelligence; diverse workforce.		municipal services; third-sector actors; international partnerships; health services (COVID-19 info).	democratic participation/social interactions; supports self-directed activities.	function; cultural/educational hub; access to technology; sustainability; transparency; mental wellbeing; adaptability.	partnerships; flexibility; collaborative spaces; social value focus.
	C3 Library, Vienna, Austria	Hybrid (academic, public, community); thematic focus: intl. development, global education, women/gender; knowledge hub; bridging academia, public, community; addressing global problems locally; engaging marginalized groups.	Co-creation of public value; "moderated co-creation"; services defined with community; challenges: no standardized processes, tight funding.	Highly qualified staff (academics, lateral entrants); strong focus on participation methods; pursue library training as add-on.	User involvement; pre-academic theses by 15+ youth (minority/migrant/marginalized); connecting everyday realities; engaging diverse people; students' critical curiosity.	Multifaceted network (federal agencies, universities, non-profits, church); operated by 3 carrier orgs; cooperates with 2 others; expands via EU projects; diverse stakeholder network.	Interdependence of services (Living Library, research initiative, award, radio); fosters networks; C3 co-creation circle maps interweaving; "living books" network of experts.	Local and global meet; supporting pre-academic theses (local context, global challenges); reaching challenging age/minority groups, SDGs; via space, events, knowledge, staff competence, participation.	No explicit co-creation measurement; activity-specific assessments (feedback forms, interviews, C3 Award); focus on impact; challenges in outreach (selection bias).
	Bibliotheek De Krook, Ghent, Belgium	Central municipal library; promotes public value	Lack of relevant information	Lack of relevant information	Lack of relevant information	Lack of relevant information	Lack of relevant information	Promotes public value through a living lab philosophy.	Lack of relevant information



Library Type	Library Name	1. Objective & legitimacy	2. Co-creation & co-innovation	3. Employee competencies	4. Role of users/citizens	5. Role of other stakeholders	6. Innovation intermediary/network enabler	7. Public value understanding	8. Success criteria
		through a living lab philosophy; inclusivity and accessibility (disabilities, multilingual).						inclusivity and accessibility.	
	Digital Humanities Workspace, Utrecht University	Research library; educates staff/students; long-term cultural/social goals; enhances digital literacy for democratic participation.	Living lab approach to co-creation; structured framework; patrons inform via focus groups, surveys.	Enhances digital literacy.	Empowers for informed decision-making; informs innovation processes.	Academic stakeholders.	Knowledge hub for interdisciplinary collaboration.	Dual definition: long-term cultural/social goals and fulfilling individual needs.	Active participation; innovative services; knowledge-sharing initiatives.
	Library Living Lab (L3) / BiblioLab, Barcelona	Collaborative experimentation; impact scalability across network.	Collaborative experimentation/co-creation; design thinking workshops; new permanent activities.	Soft skills (trust, flexibility); content/methodological skills (adaptability, analytical); high motivation needed.	Essential for innovation, co-production; active social actors.	City library service; Provincial Council of Barcelona.	Scalability is main value; extends L3 impact to network.	Scalability; meeting point, physical-digital link challenges addressed.	Returns on challenges (software, new activity).



13.1 How the objective and legitimacy of public libraries are understood

Brief summary of ideal types: Library A maintains a strong commitment to traditional missions such as promoting literature, education, and civic engagement, operating primarily within politically defined frameworks and deriving legitimacy from institutional mandates. While evolving into community hubs, their innovation potential is often moderated by these political constraints. Library B, in contrast, functions as a community host, embracing open-ended and participatory approaches that deliberately blur the traditional service provider boundary. Its legitimacy is derived from its ability to adapt, listen, and co-create with local communities, rather than solely relying on political mandates. Library C moves beyond adaptation by embedding living lab principles as a core design strategy. These institutions proactively shape a novel, visionary space, deriving their legitimacy from their capacity to encourage systematic innovation, experimentation, and collaboration with academic and municipal organizations.

Library A: Classical ideal type

Despite operating within different national and institutional contexts, the public libraries examined in this study share a common commitment to traditional missions -- promoting literature, enlightenment, education, and civic engagement. At the same time, many of these libraries are evolving to serve as community hubs and platforms for innovation. While they function within politically defined frameworks, several demonstrate significant potential for adopting living lab practices, particularly when supported by volunteer networks, activist groups, or cross-sector collaborations. These grassroots and collaborative efforts often enable libraries to experiment with new service formats and engage citizens in meaningful ways.

Frederiksberg Library in Denmark exemplifies this duality. Operating under the Danish Library Act and a municipal strategy, it maintains a strong emphasis on literature and cultural promotion, drawing aesthetic inspiration from English bookstores. Although perceived as politically guided, the library strives to balance strategic mandates with citizen needs, positioning itself more as a platform for democratic dialogue than as a proactive initiator. Its engagement with new media and digital inclusion signals an ongoing evolution -- books remain central, but the library increasingly functions as a civic space prioritizing accessibility and public engagement.

Similarly, the Public Central Library of Sparta in Greece reflects a dynamic tension between tradition and innovation. Staff members view the library as a center for lifelong learning and personal growth, with Director Mr. Sagiannis highlighting its role in supporting holistic citizen development. While aspiring to become a knowledge hub and inspirational space, the library remains deeply rooted in the preservation of Laconic history and literature. This creates a paradoxical identity -- one that simultaneously safeguards cultural heritage and seeks to transform it through educational and civic initiatives.

At Vantaa City Library in Finland, the potential of the living lab model is embedded in its collaborative ethos. Grounded in the Finnish Public Library Act (2016), the library promotes literacy, equality, and

active citizenship through partnerships with schools, kindergartens, and social services. Here, literacy is framed not merely as a skill, but as a gateway to societal inclusion, reinforcing the library's role as a community integrator and responsive civic actor.

The Vienna Libraries in Austria, operating under the education department, are defined as spaces for learning, meeting, and communication. They offer low-threshold access to information, education, culture, and entertainment, with a strong emphasis on equal opportunity, diversity, and lifelong learning. Guided by comprehensive strategies, the Vienna Libraries articulate principles of openness, service competence, diversity in offerings and staffing, and accessibility. While politically constrained, they maintain a clear commitment to supporting personal development and societal participation through inclusive and user-centered services.

In contrast to the more traditional or community-oriented libraries, the Lilliad Learning Centre in France represents an academic and research-driven model. Its legitimacy is rooted in its excellence in education and research, and its modernization efforts are centered on establishing a "Third Place" that fosters interdisciplinary collaboration. Innovation is positioned at the core of its institutional identity, with service development guided by user experience (UX) design and human-centered methodologies. Operating with relatively fewer political constraints, Lilliad illustrates how libraries can function as living labs within broader institutional ecosystems -- facilitating experimentation, co-creation, and the development of forward-looking practices that bridge academia and society

Library B: Locally embedded ideal type

In contrast to more politically constrained models, some libraries are evolving into community hosts, embracing open-ended and participatory approaches to citizen engagement. These libraries, understood as ideal types (Chapter 13) invite users to co-create meaning, content, and experiences, thereby functioning as social hubs. In doing so, they sometimes blur the boundaries between service provider and a more diverse community cultural house.

Rentemestervej Library in Copenhagen exemplifies this shift. While grounded in the Danish tradition of promoting education and enlightenment as pillars of democratic participation, the library increasingly positions itself as an open space shaped by its users. Staff reflect on the transition from a book-centric institution to a broader cultural and educational platform that incorporates events, digital media, and facilitated gatherings. However, this evolution is not without tension -- some employees express concern that the library is beginning to resemble a commercial bookstore, and that the professional autonomy traditionally associated with librarianship is being diminished.

La Petite Bibliothèque Ronde (PBR) in France operates outside the conventional public funding structure, facing annual challenges to its legitimacy. Nevertheless, it asserts its public role by offering free access, pioneering work in children's literature, and targeted support for vulnerable youth, including those under judicial protection. Its mission centers on cultural awakening, artistic education, and peace-building, establishing the library as a safe and inclusive space for growth and imagination.



The PBR's potential as a living lab lies in its grassroots engagement and its capacity to foster open-mindedness through creative programming.

MediaLab-Tabakalera in San Sebastián, Spain, reimagines the library as a dynamic and experimental space. Described as a “library-type service,” MediaLab encourages users to learn, create, and socialize through spaces designed for prototyping, interaction, and exploration. Like Lilliad, it functions as a “third space”—neither home nor workplace—where users feel a sense of ownership and comfort. Staff describe libraries as sites of tension between stability and transformation, preserving their role as guardians of free knowledge while responding to evolving community needs. MediaLab's identity as a living lab is rooted in its fluidity and openness, enabling users to shape both the space and its purpose. In summary, these cases illustrate how libraries can act as community hubs that promote innovation through user-driven engagement, cultural responsiveness, and inclusive design. Their legitimacy is not solely derived from political mandates or institutional frameworks, but from their ability to adapt, listen, and co-create with the communities they serve.

Library C: Advanced ideal type

Some of the libraries investigated, which are often iconic libraries developed in large cities in recent years, have moved beyond adaptive or community-driven models to embrace living lab principles as a core design strategy. These institutions are responsive to societal change and are designed to encourage innovation, experimentation and collaboration, often in partnership with academic, municipal and civic organisations. They derive their legitimacy from their ability to proactively shape a novel visionary library and library space rather than merely reflect it.

The Public Central Library of Veria, Greece, exemplifies this proactive stance. Staff views the library as a multifaceted institution that promotes lifelong learning, community engagement and democratic citizenship. Its mission to ‘make people's lives easier and better’ reflects a deliberate shift from providing passive services to actively contributing to society, with a particular focus on nurturing future readers and democratic citizens, especially among young people.

The Dokk1 building in Aarhus, Denmark, is a prime example of a living lab design. It is described as “an open urban space”. While rooted in the traditional values of education and democracy, Dokk1 is regarded as an empowering ally of citizens rather than just a municipal entity. Its legitimacy is seen as based on inclusivity, experimentation and credibility, and it has been mandated by the municipality to address complex societal issues such as mental health and democratic dialogue. The Building from 2015 is intentionally designed to support diverse encounters and continuous innovation, making it a dynamic civic infrastructure.

Although Helsinki Central Library Oodi and Dokk1 have collaborated from the outset and drawn inspiration from each other, they each have their own distinct characteristics. Oodi embodies the principles of a living lab through its alignment with the Finnish Library Act (2016), which emphasises democracy, freedom of expression and equality. It is seen as a “warm public place” -- a free, inclusive



space for all citizens, including marginalised groups. It actively engages in societal discussions, hosts diverse events and promotes traditional and digital literacy. The Maker Space at Oodi further illustrates this mission by offering free access to advanced technologies and fostering digital empowerment. The challenge for Oodi lies in balancing competing values -- freedom of expression, equality and democracy -- while remaining a trusted civic institution.

Located in Vienna, Austria, the C3 Library is a hybrid space that combines the functions of a public, research and community library. With a thematic focus on global development, gender, and marginalised communities, the C3 Library facilitates knowledge exchange and civic discourse. Its legitimacy is rooted in its ability to bridge the academic, policy and public spheres, establishing it as a living laboratory for global citizenship.

Bibliotheek De Krook in Ghent, Belgium, with similar ambitions as Dokk1 and Oodi, positions itself as a hub for knowledge, culture, and innovation. It emphasises digital adaptation, inclusivity, and sustainability. Despite facing challenges such as funding constraints and evolving user expectations, De Krook strives to become a resilient civic anchor.

At Utrecht University in the Netherlands, the Digital Humanities Workspace (DHW) applies living lab principles in an academic context. The DHW fosters interdisciplinary collaboration and 'Open Science', promoting free access to scholarly resources and supporting students facing economic or cultural barriers. The DHW's legitimacy stems from its alignment with the university's broader goals of enhancing digital literacy and democratic engagement.

Finally, the Library Living Lab (LLL) in Sant Cugat del Vallès, Spain, and the BiblioLab network is seen to exemplify libraries as boundary objects -- spaces where diverse communities of practice converge. These libraries facilitate collaboration across sectors, even in the absence of initial consensus, and embrace their role as guardians of free knowledge, remaining flexible and responsive in the process. Staff perceive a tension between stability and transformation, but view the library as a space for civic experimentation and innovation.

13.2 How co-creation and co-innovation is both understood and outlived

Brief summary of ideal types: In Library A, co-creation is typically fragmented, pragmatic, and event-based, emerging from localized needs rather than being embedded as a continuous practice. Experimentation is often approached with caution and moderated by institutional expectations or political constraints. Library B adopts a Living Lab approach focused on hosting and facilitating community creativity, enabling spontaneous and informal user-led initiatives within a supportive environment. This relies heavily on staff sensitivity and openness to user agency. Library C strategically embeds co-creation and Living Lab principles into its foundational architecture, governance, and service logic. These advanced libraries are structurally built to foster participatory innovation, incorporating sophisticated methods like structured design thinking, continuous feedback loops, and citizen involvement from the earliest conceptual stages.



Library A: Classical ideal type

Across a range of different library settings, the principles of co-creation and co-innovation are increasingly being incorporated into service development, albeit with varying levels of institutional support, political constraints and methodological expertise. While some libraries support volunteers and citizen initiatives by offering facilities and resources for co-creation, experimentation is usually fragmented rather than being embedded as a continuous practice. Co-creation is pragmatic and event-based, emerging from ongoing relationships and localised needs rather than formal innovation cycles. However, the most innovative libraries, such as Oodi and Dokk1, have formalised co-creation through structured methodologies.

The Sparta Library is a prime example of a dynamic co-creation model that is firmly grounded in community engagement and entrepreneurial collaboration. Staff are encouraged to cultivate personal relationships with users and leverage feedback mechanisms such as LibQual surveys and informal dialogue. User participation is essential for initiatives such as educational programmes and robotics competitions, while events like the Start Up Weekend Sparta, which is driven by local entrepreneurs, highlight the library's openness to external expertise and grassroots innovation. The "Summer Campaign for Reading and Creativity" relies on volunteers to design and deliver workshops.

While maintaining a traditional public library identity, Frederiksberg Library integrates co-creation through citizen-initiated activities and volunteer engagement. It functions as a platform for debates and cultural activities, supporting grassroots initiatives while aligning with municipal strategies. Here, co-creation is described as a deep collaborative process -- "getting right to the core" -- though experimentation is approached with caution. The library provides a structured environment for citizen-led projects, balancing innovation with institutional stability.

Even if the terminology of Living Labs is not explicitly adopted, Lilliad Library demonstrates implicit co-creation through user-centred design. UX design methods play a central role, as can be seen with the loké exam review platform, for which volunteer students participated in iterative design sessions to improve usability and discoverability. This approach reflects the pragmatic application of co-production principles in an academic context.

Vantaa Library embeds co-creation within its civic mission, positioning itself as a facilitator of community needs. Its collaboration extends to schools, kindergartens, healthcare providers, and local associations. Service design, surveys and everyday interactions are all part of its declared participatory model. A robust volunteer network empowers citizens to initiate and deliver services, thereby reinforcing the library's role as a civic partner rather than a top-down provider.

Co-creation and co-innovation in Vienna's libraries are understood and implemented at various levels. Innovation can be initiated from above by the municipality (e.g. Open Library, streaming services) or through strategic municipal plans, though central demands are relatively few. Innovation can also emerge from networked branch libraries (e.g. a partnership with the StOP association) or be initiated



by individual branches, often driven by engaged employees or library users. This is considered the “classical form of innovation”. Operational outreach relies heavily on forming alliances with local associations and NGOs in order to offer a diverse range of services that neither entity could provide alone. While user influence is informative, development is primarily led by library professionals and management. Co-creation, particularly when operating an existing library, tends to be iterative and based on trial and error rather than large-scale participatory design for new structures.

Although Library A is rich in Living Lab potential, it faces political constraints that shape its co-creation trajectory. Like Frederiksberg and Vienna, it may adopt a moderated approach that supports citizen engagement within defined boundaries. The challenge lies in navigating institutional expectations while fostering genuine collaboration.

Library B: Locally embedded ideal type

Unlike more structured or politically moderated models, Library B takes a Living Lab approach, focusing on hosting and facilitating community-driven creativity. Here, co-creation is more about enabling spontaneous, user-led initiatives within a supportive environment than about formalised processes.

Rentemestervej Library exemplifies the inherent tensions in community hosting. Although policy documents emphasise identifying citizen needs through behavioural and service design, the actual decision-making power remains limited. Nevertheless, the staff maintain an ‘open and sensitive’ attitude towards citizen initiatives, providing facilitation and coaching when ideas arise. Co-creation often manifests informally, for example when patrons rearrange furniture to reshape the space, highlighting low-threshold, ad hoc engagement. The cultural centre branch, with its legacy of volunteerism, continues to support user-driven activities, suggesting that co-creation thrives where institutional flexibility meets community initiative.

The PBR Library takes a more proactive approach, particularly in engaging children as co-creators of cultural and creative experiences. Through workshops and interactions with artists, children participate in imaginative processes that build confidence and digital literacy. Adult intermediaries (e.g. educators and childminders) are also involved in co-designing support structures, often through dialogue aimed at overcoming resistance and tailoring services. Programmes such as Story and Dance reflect an iterative learning model where services evolve based on feedback and experience, thereby reinforcing the library’s role as a responsive host.

Overall, these examples demonstrate how libraries function as community hosts, enabling user involvement through sensitivity and openness to user agency. Rather than prescribing innovation, these libraries cultivate environments in which creativity and collaboration can flourish organically and in unexpected ways.

Library C: Advanced ideal type



Library C represents a model where co-creation and Living Lab principles are embedded from the outset -- through architectural design, strategic planning, and service development. These libraries are not just responsive to user input; they are structurally and philosophically built to foster participatory innovation.

Veria Library exemplifies user-driven innovation, with a strong commitment to fulfilling public requests -- reportedly meeting 90% of user demands. The free-to-use creativity lab serves as a hub for initiatives like the CERN – Scientists for a Day workshop and cybersecurity seminars, both initiated by users. The summer camp, designed to support working parents, is another example of co-created programming that relies heavily on volunteer contributions.

The Dokk1 Library seeks to integrate a structured approach to design thinking with a curatorial approach, emphasising dialogue, visualisation and prototyping to uncover user needs. Co-creation is facilitated through structured platforms such as the World Room, which encourages citizens to engage with the UN Sustainable Development Goals. Although citizens are encouraged to take the initiative, their contributions are guided by the library's overarching purpose and code of conduct, striking a balance between innovation and institutional values.

From the outset, Oodi has involved citizens and partners in shaping its architecture, services and identity. The Dream campaign collected over 2,300 ideas, which influenced everything from the range of services offered to the name of the library. Through participatory budgeting, citizens were able to allocate funds for pilot projects, including the development of the Versta workshop area containing various technical devices such as 3D printers. Oodi's co-creation model is rooted in "community self-management", incorporating continuous feedback loops through social media, in-person interactions and traditional channels.

In contrast, Vienna's C3 Library articulates a model of "moderated co-creation", where strategic agendas guide thematic direction but service elements are refined collaboratively. Although the term "co-creation" gained traction through EU projects, participatory design has long been embedded in practice. For instance, the interests of young people inform the topics of the Living Library through expert dialogue and observation, blending institutional priorities with community relevance.

Bibliotheek De Krook was conceived through the Living Lab philosophy, with the involvement of young people from an early stage shaping its design. It uses user-centred design, workshops and focus groups to refine its services. Projects such as Soul in Power, Taalpunt and Comon demonstrate how citizens can contribute to research and innovation. Collaborative spaces and public debates further reinforce the library's role as a civic laboratory.

Both DHW and the Library Living Lab (LLL) exemplify architectural co-creation and technological experimentation. Their spaces were designed through multi-stakeholder processes that prioritised openness and flexibility. Projects such as ExperimentAI demonstrate co-design and co-production in



action by involving a variety of stakeholders, ranging from researchers to citizens, in the exploration of the societal implications of AI. These libraries emphasise contextual analysis over fixed methodologies, adapting co-creation strategies to local needs and capacities.

Together, these libraries demonstrate how the more design approaches to innovation in a “living lab” type of setting is not merely a methodology but a foundational principle. Co-creation is embedded in their architecture, governance, and service logic, with the intention to enable sustained, meaningful engagement with diverse communities.

The cases also demonstrate that libraries face challenges in terms of co-creation and user involvement. They tend to appeal to users who actively engage with the library, while those who come for peace and quiet may find it more difficult to settle in. Some libraries are trying to address these issues. For instance, Dokk1 was taken aback by the fact that socially vulnerable and homeless individuals weren’t frequenting the library. To overcome this, it has started organising special outdoor activities for them.

13.3 The role of and competences requirements for library staff in co-creation

Brief summary of ideal types: Library A requires staff roles to transition from traditional librarianship to multifaceted facilitation, community engagement, and mediation (e.g., navigating complex social dynamics and political demands). New competencies include pedagogy, social work, and an experimental mindset, reflecting a broadening professional identity. Library B focuses on staff as community connectors, cultural facilitators, and trust-builders. Competencies are grounded in relational depth, cultural fluency, and adaptive hosting, often requiring staff who are embedded in the local community to build trust with diverse actors. Library C deliberately develops staff as facilitators of access, co-creators, technological guides, and community collaborators. Recruitment often prioritizes relational, interdisciplinary, and user-centred design skills, emphasizing technological fluency and the ability to navigate complex social dynamics to support continuous, systematic innovation.

Library A: Classical ideal type

The transition towards co-creation and Living Lab practices in library A settings demands a significant evolution in staff competencies. Although political constraints may moderate the pace and scope of innovation, the libraries profiled in this category demonstrate a clear shift in employee roles -- from traditional librarianship to multifaceted facilitation and community engagement.

Sparta Library, for example, emphasises digital literacy and continuous learning, guided by the strategic vision of its director, who is the only qualified IT professional on staff. This leadership fosters a culture of lifelong learning where staff are expected to be adaptable, communicative and proactive in engaging with users. Their roles extend beyond information management to include facilitation, education, creative thinking and workshop leadership, reflecting a broadening of professional identity in line with co-innovation goals.



Frederiksberg Library emphasises the importance of relational, process-oriented and network-oriented skills in supporting citizen-led activities and navigating complex social dynamics. Staff are increasingly required to mediate conflicts between citizens, balance the diverse interests of policymakers, and engage in values-based dialogue, particularly when the library becomes a platform for activism or civic debate. Recognising the need to “experiment” with services implies a demand for flexibility, curiosity and an experimental mindset among employees.

The Lilliad Library has adopted a structured approach to developing staff skills, combining targeted recruitment (for example, hiring staff with expertise in UX design or Open Science), on-the-job learning and internal training in relational and creative competencies. The shift from traditional tasks such as cataloguing to event facilitation and user engagement reflects a redefinition of librarian roles. Staff are categorised into distinct profiles, such as storekeepers and liaison librarians, each with a set of skills tailored to front-end or back-end responsibilities.

Vantaa Library emphasises service orientation, communication and social sensitivity, particularly when working with diverse user groups. Staff are expected to be flexible, technologically literate and committed to dialogue and community support. Their work often includes elements associated with social work, requiring emotional intelligence and the ability to build trust with different demographic groups. Because the staff may see these requirements as challenging, the library has named a person that supports citizen engagement in the development projects across the branch libraries.

At the Vienna libraries, front-line staff play a vital role in connecting the library with its network of local NGOs and associations. Acting as “active citizens”, they perceive societal tensions and contribute ideas for solutions that enhance participation, democratic values and well-being. This requires a shift in professional identity from traditional media management to increased user contact, event management and community work, which can lead to internal conflicts. The new competencies required include pedagogy, social work, media education, digital skills and event management. Employees also act as mediators, matching user needs with resources and ideas. Examples include the initiative to lend cargo bikes and the integration of community nurses.

A common trajectory emerges across these libraries: the transformation of staff roles to meet the demands of co-creation and engagement with stakeholders and policymakers. This requires not only the acquisition of new technical and interpersonal skills, but also the adoption of an experimental mindset and responsiveness to citizens and political demands, as well as community facilitation.

Library B: Locally embedded ideal type

In Library B settings, where co-creation is facilitated by hosting and enabling community-led initiatives, employees’ skills are shaped by relational work, adaptability, and the ability to mediate between the needs of different users. Staff are community connectors, cultural facilitators and trust-builders as well as service providers.

Rentemestervej Library has undergone a structural transformation, merging librarians and cultural centre staff, and dividing roles into logistics employees and hosts. This shift has led to a perceived loss of connection to the book collection, challenging traditional librarian identities. The roles of front-line staff have diverged: library staff now focus on disseminating knowledge, while cultural centre staff emphasise creating spaces for user expression. This duality requires staff to possess strong relational skills, flexibility, and the ability to navigate interdisciplinary collaboration, often in the absence of a shared professional language or background.

PBR Library has restructured its staff roles to encompass a variety of responsibilities, including communication, early childhood education, cultural action, ICT, heritage, and mediation. Employees who are embedded in the local community -- some of whom live in the same working-class neighbourhoods -- play a crucial role in building trust with families who may be less engaged with cultural institutions. This highlights the importance of soft skills, cultural sensitivity and community familiarity. Staff are expected to keep up to date with children's literature, digital tools, and innovative pedagogical approaches, and to participate regularly in study days to collaboratively explore new methods and technologies.

MediaLab represents a departure from traditional librarian profiles, favouring staff with backgrounds in cultural management, the arts, and interdisciplinary fields. The emphasis is on transversality, requiring employees to be flexible and adaptable in their approach to diverse users and projects. Success hinges on accompaniment and mediation, with staff providing timely and transparent responses to user needs, while managing expectations with empathy and clarity. This model demands a high level of emotional intelligence, project management skills and creative problem solving.

Across the libraries representing the type B, staff play a more supportive role, facilitating access, encouraging user autonomy, and fostering community relationships rather than controlling content. Competencies are grounded in relational depth, cultural fluency and adaptive hosting, allowing libraries to operate as open, inclusive platforms for collaboration.

Library C: Advanced ideal type

In Library C settings, where co-creation is embedded in the architecture, governance and service logic, staff skills are deliberately developed to encourage innovation, user-centred design and participatory development. Staff are seen as facilitators of access, co-creators, educators, technological guides and community collaborators.

Veria Library emphasises forward-looking skills, including technological literacy, creativity, communication and adaptability. Staff are expected to actively seek collaboration and be open to new ideas. The evolving librarian profile encompasses educational and digital competencies, with individuals such as Mrs Triantafyllou exemplifying this shift by embracing roles as educators and creative facilitators. The ethos is that creativity and innovation start with the staff.



The Dokk1 Library also demonstrates a deliberate departure from traditional librarian roles. The director avoids the term “librarian”, signalling a shift towards generic, team-based roles focused on event and project development. Recruitment prioritises relational and interdisciplinary skills over formal library education. While staff are trained in design thinking, this transformation can be exclusionary as not all employees adapt easily to networked, user-oriented and project-based work. This reveals the need for inclusive professional development strategies.

The Oodi library requires its staff to possess a broad and flexible skill set spanning education, literacy, technology and advisory services. The removal, in Finland, of the requirement for mandatory library degrees has resulted in a more diverse workforce, including cultural producers, artists and educators, who must be capable of providing cross-functional support (e.g. assisting with laser cutters in the makerspace). While continuous training is essential, it can also lead to stress regarding workloads. Staff must excel in dialogue, emotional intelligence, and self-management, particularly given Oodi’s flat hierarchy and community self-management model, which requires conflict resolution and collaborative problem solving.

Vienna’s C3 Library has also deliberately shifted from classic documentation skills to competencies aligned with participatory service design. Effective co-creation here depends on staff possessing participative method skills, strong networking abilities, and trust-building skills. Affinity with the library’s thematic focus, such as global education and gender issues, is considered an asset, as are openness, flexibility, and multilingual capabilities.

The C3 Library employs highly qualified staff, often with academic backgrounds in the social sciences and international development. This expertise is complemented by Austrian library training. Key competencies include openness, flexibility, IT proficiency, multimedia literacy, and language skills. The library’s shift from documentation to participatory services highlights the growing importance of engagement, co-creation, and educational facilitation skills, particularly for initiatives targeting young people and marginalised groups.

Similarly to Bibliotheek De Krook, staff are required to master interpersonal, facilitation, communication, technological and project management skills, as well as creative thinking and cultural mediation. Due to budget constraints, De Krook collaborates with Ghent University and IMEC to address skill shortages by bringing in external experts. Attracting and retaining staff with these multifaceted skills remains challenging, as does finding time for continuous learning.

Both the Library Living Lab (LLL) and DHW emphasise the importance of motivation and soft skills over technical expertise. Staff are often not specifically trained in Living Lab methodologies, which can lead to cultural and personal barriers. Design thinking workshops help to identify skill gaps and reveal that trust, reliability, flexibility, active listening and analytical thinking are essential. Public institutions are responsible for providing ongoing training and adaptable tools to prevent demotivation and skill mismatches.



Across Library C, staff competencies reflect a deliberate shift towards multidisciplinary, user-centred and innovation-driven roles. Staff are expected to be creative and collaborative, as well as being technologically fluent and able to navigate complex social dynamics and support participatory development. The challenge lies in sustaining these competencies through inclusive recruitment, ongoing training, and organisational support.

13.4 The role of users/citizens in co-creation/co-innovation

Brief summary of ideal types: In Library A, user involvement is mediated and often constrained by leadership-driven agendas. Users primarily contribute through feedback, volunteer work, and programmed activities, but they have limited or indirect influence on core strategic decisions or service design. Library B sees users less as strategic co-designers and more as informal guests or ad hoc contributors whose engagement is enabled through hosting structures and staff openness. Their success depends on staff facilitation and community readiness rather than tight management. Library C empowers users as co-designers and co-owners, with co-creation embedded into the institutional DNA. Users are involved from ideation through implementation (e.g., through participatory budgeting or initiating workshops), fundamentally shaping services, spaces, and institutional direction.

Library A: Classical ideal type

In Library A settings, user involvement in co-creation and co-innovation is present but often constrained by leadership-driven agendas. While users contribute to activities and provide input, their influence on strategic decisions and service design tends to be limited or indirect.

Sparta Library showcases active user participation in community-led events such as robotics teams, poetry nights, Startup Weekend, and summer educational programs. Citizens contribute through volunteering, collaboration, and attendance, creating value through engagement. However, the Director remains the primary driver of innovation, with users playing a more supportive than directive role in shaping services. Co-creation is thus more event-based than systemic, with limited user influence on core service design.

Frederiksberg Library involves users primarily through focus groups, observations, and surveys, which inform the innovation process. Volunteers contribute to initiatives like homework cafés and reading dogs, motivated by a desire to give back to community and meaning-making. While these activities create an input to the library, there is a noted absence of an new citizen-to-citizen connections that extend beyond the library. The library acknowledges the need to include marginalized voices, even those that challenge conventional norms, but this ambition is still curated by library staff.

Lilliad Library engages users at multiple levels: top managers consider user perspectives, middle managers facilitate staff-user collaboration, and front-office employees respond directly to user needs. Users are also trained to navigate new services, indicating a reciprocal model of co-creation where users are both contributors and learners.



Similarly, Vantaa Library involves users in describing needs and aspirations, particularly through service design methods like children's drawings of dream libraries. While users advise and consult, their role in developing solutions or making decisions is limited, except in cases like participatory budgeting and volunteer-led activities. Co-creation is embedded in daily interactions and group activities, fostering peer-to-peer engagement and community value creation.

At the Vienna libraries, users can be idea generators for small-scale services (e.g., crocheting groups, public viewings). Users also act as content providers in formats like storytelling cafés and language cafés, where their participation is crucial for the activity's success. In the broader sense of libraries as physical encounter spaces, users become resources for meeting and exchange. Vienna libraries aim to empower user groups that lack personal power due to mental health, language barriers, or educational disruptions through special programs. Users are also active recipients (co-producers) who must actively engage with services, whether by visiting the library or navigating digital platforms for ebooks. Finally, infotained users have been identified, benefiting from traditional library value propositions like information, entertainment, and personal growth. Barriers to user involvement include administrative regulations and safety concerns.

Across Library A, users play a mediated role in co-creation. Their contributions are most visible in programmed activities, feedback, and volunteer engagement, while strategic innovation remains largely staff- or leadership-driven. The challenge lies in deepening user agency and broadening participation, especially in politically sensitive or structurally constrained environments.

Library B: Locally embedded ideal type

In Library B settings, users are seen less as strategic co-designers of the library setting and more as guests, whose engagement is often informal, ad hoc, or facilitated through hosting structures.

Rentemestervej Library reflects a policy ambition to activate users for "user-driven activities" that require minimal staff input. In practice, however, staff note that few activities are truly initiated and sustained by users. Staff describe "a lot of minor mysterious initiatives," suggesting a latent creative energy among users that depends heavily on the openness and sensitivity of employees to be realized. Thus, while the infrastructure for co-creation exists, its activation is uneven and contingent on staff-user dynamics.

PBR Library has a tradition of user engagement with children, parents, and educators. Children are seen as naturally curious and often co-create through play and exploration, supported by librarians who help them overcome initial resistance. Adults, especially in vulnerable or institutional contexts (e.g., judicial protection), are more reluctant, requiring intermediary facilitation. Co-creation here is often mediated through adult stakeholders, such as educators or caregivers. Notably, PBR empowers youth by reversing roles, for example, having older children explain video games to younger ones -- an approach that fosters confidence and peer learning.



MediaLab exemplifies a more structured and strategic model of user co-creation. Individuals from diverse backgrounds -- scientists, artists, entrepreneurs -- are involved from the earliest stages of project development, helping to define communities of practice and shape programming. The use of "Open Groups" allows users to research topics, generate knowledge, and co-develop activities, embedding co-creation into the library's operational DNA. Transparent decision-making processes and a culture of shared ownership foster a strong sense of community and innovation.

Across Library B, users are invited to participate, but their roles vary significantly -- from informal contributors and peer educators to co-researchers and co-designers. The success of co-creation depends not only on institutional openness but also on staff facilitation, community readiness, and the availability of supportive structures. These libraries act as hosts, creating the conditions for co-creation to emerge organically, rather than prescribing or tightly managing it.

Library C: Advanced ideal type

In Library C settings, users are not only seen as participants but as co-designers and co-owners of library services and spaces. Co-creation is embedded into the institutional DNA, with users being framed as active contributors from the earliest stages of ideation through to implementation and evaluation. These libraries are designed with the intention to empower users, enabling sustained and meaningful engagement.

Veria Library exemplifies a model where user engagement directly drives service creation. Citizens initiate workshops and seminars -- such as CERN – Scientists for a Day and cybersecurity sessions. Users are encouraged to participate in interactive workshops, collaborative projects, and community-led initiatives, shaping both content and structure. This high responsiveness positions users as co-innovators, essential to the library's continued relevance.

The Dokk1 Library emphasises collaborative experimentation through a design thinking framework. Citizens are encouraged to contribute to exhibitions, events and thematic platforms such as the World Room through dialogue-based innovation. Although the library promotes democratic participation, it recognises that not all users feel equally comfortable engaging in these processes, thus emphasizing the need for continuous adjustments.

Helsinki Central Library Oodi is an example of deep, continuous user involvement. From the Dream campaign to participatory budgeting, citizens have shaped the library's design, services, and even its name. The second-floor Versta workshop is a hub for grassroots co-creation, where users propose and develop ideas. Oodi's philosophy of community self-management is meant to foster bottom-up innovation, though challenges remain in ensuring equitable access, especially for undocumented individuals or those facing digital barriers.

C3 Library focuses on youth empowerment and inclusion, particularly among marginalized and minority groups. While students have limited input in initial design, they co-create during events --



selecting speakers, shaping discussions, and contributing to global-local knowledge translation. The C3 Living Library and young research initiatives exemplify how critical curiosity and social engagement from users invigorate the institution. However, the library acknowledges the need to better reach non-users and expand beyond its core audience.

Bibliotheek De Krook integrates user participation in various ways -- from individual feedback to collective co-creation with civic groups and academic institutions. Citizens engage in workshops, surveys, focus groups, and Living Lab projects targeting youth, immigrants, and non-native speakers. While co-ideation and co-consumption (with staff) are seen as common, the hard work of implementing co-design processes are seen as more challenging. A recurring issue is the reliance on a small group of highly engaged users, leaving the broader public underrepresented.

DHW and Library Living Lab (LLL) both emphasize early-stage user involvement in co-design and co-production. Projects like ExperimentAI and 3D Capitals intend to involve citizens in shaping content and structure, with LLL employing a taxonomy of user roles (Alpha to Delta) to accommodate varying levels of engagement. Transparent decision-making and multidisciplinary collaboration are seen as key, though both institutions recognize the need to broaden participation and integrate initiative such as citizen science for greater societal impact.

In Library C, users play a central role in innovation, and are empowered to influence services, spaces and institutional direction. Co-creation is a core operational principle rather than an add-on. It is supported by participatory infrastructure, inclusive design and a commitment to bottom-up development. However, the challenge lies in scaling inclusivity to ensure that co-creation is accessible to all, not just those who are the most confident or connected.

13.5 The role of other stakeholders (private actors, communities) in co-creation/co-innovation

Brief summary of ideal types: In Library A, external stakeholders (NGOs, businesses) play a supportive but often peripheral role. Collaboration is generally consultative, constrained by internal governance and political considerations, meaning external input is valued but typically not decisive. Library B acts as a community host, facilitating collaborative and enabling partnerships with local organizations and cultural institutions that bolster user-driven initiatives. These libraries often operate within a Quadruple Helix innovation model, focusing on fostering partnerships rather than controlling them. Library C relies on strategic, systematic, and deeply embedded multi-sector collaboration with public institutions, private companies, and academic partners. Stakeholders are seen as co-developers involved from the earliest stages, operating within a shared responsibility model that drives continuous innovation.

Library A: Classical ideal type

In Library A settings, however, external stakeholders -- ranging from local businesses and NGOs to municipal administrations and academic institutions -- is seen to play a supportive but often peripheral



role in co-creation of services. Their involvement is typically framed by institutional boundaries, political sensitivities, and internal decision-making structures, which can limit the depth of collaboration.

Sparta Library engages with private organisations, including local groups, companies and NGOs, as well as individuals, who contribute through donations, expertise and volunteering. Community groups such as the Laconia Theatre and the local cathedral contribute in shaping cultural programs. These stakeholders help to determine priorities, design initiatives and assess outcomes jointly, although final decisions are made internally and are often led by the Director. This model reflects a consultative approach, where external input is valued but not decisive.

Meanwhile, Frederiksberg Library navigates a complex landscape of political strategies and citizen needs, primarily collaborating with municipal administrations and politicians. The library positions itself as a platform for democratic debate, accommodating diverse and sometimes controversial voices. Events such as the drag show, which sparked a national debate about the role of libraries, illustrate the challenges of stakeholder engagement in politically sensitive contexts. Staff are now being trained to manage such situations with procedural clarity and proportionality, ensuring that minority voices are heard without compromising institutional neutrality.

Lilliad Library collaborates with external service providers, particularly for IT services defined by the SCD (Service Commun de la Documentation), which are tested with users. Innovations are often shared across university libraries, necessitating coordination with other university services and French academic institutions. Projects such as Open Science negotiations with publishers exemplify how inter-institutional collaboration drives innovation, albeit within the academic ecosystem.

Vantaa Library, on the other hand, states a more integrated public stakeholder model, working closely with schools, kindergartens, healthcare districts and residential associations. A broad volunteer network of 80–100 residents supports programming and service delivery. These stakeholders are involved in co-designing services, co-implementing initiatives and enhancing resources and expertise, reflecting a municipal-level ecosystem of collaboration.

In Vienna, stakeholders are also seen to make contributions to co-creation and co-innovation. Librarians consider non-users when planning outreach efforts to meet the needs of diverse populations. National and international library associations (such as EBLIDA and IFLA) help facilitate the exchange of ideas and best practices through conferences and programmes such as Erasmus+. Non-governmental organisations (NGOs) and non-profits are also listed as partners, enabling collaborations that are said to be a win-win for all involved, attracting new users and sourcing specialised competencies and volunteer support, such as from PROSA or StOP. In return, NGOs gain access to library space and recognition. The policy sector is a key stakeholder, influencing initiatives through positive feedback or direct mandates, such as community support for online applications for energy bonuses. However, a lack of political intervention and financial resources is seen to weaken

libraries, and policy is also requested to address the challenges posed by publishers' ebook licensing models.

In summary, across library A settings, external stakeholders contribute resources, expertise and legitimacy, but their influence is often mediated by internal governance structures and political considerations. There is potential for deeper co-creation, but realising this requires institutional openness, shared decision-making and strategic alignment between libraries and their partners.

Library B: Locally embedded ideal type

In Library B settings, external stakeholders -- ranging from local associations and cultural institutions to artists and public agencies -- are seen to play a collaborative and enabling role in co-creation. These libraries act as community hosts, fostering partnerships that bolster user-driven initiatives and enhance the library's social and cultural significance.

Rentemestervej Library, for example, maintains formalised collaborations with a variety of local organisations. A notable example is the café tenant, whose presence is justified not only economically, but also socially, as it serves as a local meeting point and helps to broaden the user base. The library also collaborates with municipal organisations such as the Youth Club, sports and activity centres, and FOF (evening school), as well as civil society groups including the National Reading Association and the Danish Textile Guild. These partnerships support a diverse range of activities, though the library's role is often more facilitative than directive, enabling stakeholders to contribute within a loosely coordinated framework.

The PBR Library collaborates with five funders (e.g. public or philanthropic bodies), project-granting institutions, institutions requesting PBR expertise (e.g. schools and nurseries), artists, cultural partners and professional associations. These collaborations enable initiatives such as reading promotion for children under judicial supervision and specialised training for educators. PBR often takes a leading role in co-creating programmes with partners, guiding the development of educational and cultural initiatives. Long-term network support from patrons is also valuable in reinforcing the library's role as a trusted community anchor.

MediaLab operates within a "Quadruple Helix" innovation model, engaging with stakeholders from public administration, industry, academia and civil society. This model is intended to foster synergies across sectors, enabling the library to act as a knowledge node and creative hub. The ACTS (Art, Science, Technology, and Society) initiative is an example of this approach, as it builds relationships with international cultural, scientific, and technological centres. MediaLab also emphasises the importance of fluid dialogue among community-building institutions such as civic centres, elderly care facilities, and cultural organisations, thereby reinforcing its role as a connector and catalyst for local innovation.



Thus, in Library B settings, external stakeholders are integral to the co-creation ecosystem, contributing resources, expertise, and legitimacy. These libraries succeed by facilitating partnerships rather than controlling them, creating open platforms where diverse stakeholders can collaborate, experiment and co-develop services that reflect community needs and aspirations.

Library C: Advanced ideal type

In Library C settings, external stakeholders are deeply embedded in the co-creation ecosystem. These libraries are designed to foster systematic, strategic, and multi-level collaboration with public institutions, private companies, civil society organizations, and academic partners. Stakeholders are involved in supporting services, co-defining priorities, co-designing solutions, and co-implementing programs, often from the earliest stages of development.

Veria Library relies heavily on volunteers, particularly parents, who support initiatives such as the robotics team and summer camp. External actors, including local companies, individuals, and community organizations, contribute through donations, logistical support, and feedback. Due to limited financial resources and challenges with political independence, Veria depends on crowdfunding and fundraising, making stakeholder involvement essential for sustaining innovation and relevance.

The Dokk1 Library is a good example of a highly networked model, collaborating with 330 partners across approximately 140 activities. These partners are categorized as network partners (informal collaborators), service partners (regular contributors), and strategic partners (key institutions, such as schools and museums). Examples include joint projects with Aarhus University and LEGO, as well as informal collaborations with other universities. These partnerships are crucial for maintaining relevance, versatility, and legitimacy. They also reflect a layered stakeholder strategy that supports experimentation and institutional alignment.

Similarly, the Oodi library integrates stakeholders into its core planning and operational processes. From the beginning, partners, including municipal schools, youth services, universities, and third-sector organizations, were involved in designing Oodi's services. A communication designer facilitated dialogue during the planning phase to ensure alignment with citizen needs. Oodi also collaborates internationally with libraries in Denmark and the Netherlands. During the pandemic, Oodi partnered with city health services while maintaining boundaries to preserve its democratic mission. Stakeholders are seen as co-developers who contribute to a shared responsibility model that drives continuous innovation.

Vienna's C3 Library is also embedded in a multifaceted organizational network that includes federal agencies, universities, NGOs, and the church. Operated by three carrier organizations -- ÖFSE, Baobab, and Frauen*solidarität -- C3 collaborates with development policy organizations and EU-funded research projects. The Living Library network of experts includes activists, politicians, academics, and civil society initiatives, emphasizing content-rich, thematic partnerships. C3 has



withdrawn from traditional library networks to prioritize mission-aligned collaborations with NGOs and university organizations.

The Library Living Lab (LLL) exemplify inter-institutional collaboration, involving permanent working groups with representatives from municipalities, universities, research centers, and community associations. These stakeholders are actively engaged in decision-making, ensuring public accountability and shared ownership. Although private sector involvement remains modest, it is growing -- for example, Hewlett Packard's sponsorship of the 3D Capitals project. The LLL emphasizes the need for a dedicated manager to connect diverse stakeholders and operationalize the quadruple helix model fully.

In summary, across Library C settings, stakeholder engagement is strategic, structured, and deeply integrated into the co-creation process. These libraries serve as platforms for multi-sector collaboration, enabling innovation through shared responsibility, cross-sector dialogue, and inclusive design. The challenge lies in maintaining alignment, ensuring equitable participation, and scaling successful models across broader networks.

13.6 The role of public libraries as innovation intermediary/network enabler

Brief summary of ideal types: Library A's intermediary role is often constrained by politics and resources. While they maintain stable input networks (formal partnerships), their ability to actively broker lasting citizen-to-citizen connections or stable output networks that emerge from library activities is often limited. Library B plays a more passive intermediary role, focusing on hosting spaces, bridging social worlds, and supporting emergent networks. They act as a "network catalyst," cultivating relational infrastructure that allows user-driven innovation to arise organically. Library C is deliberately designed as an innovation intermediary and network enabler. They actively facilitate multi-sectoral partnerships and empower partners and users to lead change, operating with robust input and output networks to sustain innovation, community engagement, and high visibility

Library A: Classical ideal type

In Library A settings, public libraries play a role as innovation intermediaries and network enablers, though this role is often constrained by political structures, limited resources, and institutional boundaries. While libraries facilitate connections and support co-creation, their ability to activate and sustain broader innovation networks varies significantly.

Sparta Library plays a modest yet strategic intermediary role by collaborating with schools, local communities, and external companies to co-produce value. The library provides space, know-how, and coordination while relying on external agents, such as local businesses, for funding and expertise. Initiatives like Startup Weekend Sparta demonstrate the library's ability to foster entrepreneurial skills, assist in the development of early-stage projects, and connect creators to broader innovation ecosystems, albeit on a limited scale.



Frederiksberg Library functions more as a community anchor than a network enabler. It uses volunteers and a volunteer coordinator to build an input network of citizen contributors but lacks mechanisms to foster connections among citizens that emerge from library activities. Its role in network facilitation is described as “very limited,” focusing instead on maintaining a “loose network around the library” to sustain engagement. The library offers a safe public space and a generative platform for debate but does not actively broker innovation networks.

Lilliad Library operates within a multi-scalar network with the U of Lille at its core. Top managers are embedded in national and international networks (e.g., Open Science), while operational staff build academic partnerships to co-create and improve services. The Documentary Steering Committee (COD) facilitates cross-institutional dialogue, positioning Lilliad as a knowledge intermediary within the university ecosystem. The library’s network-enabling role is strongest in academic and research contexts rather than in civic or entrepreneurial domains.

Vantaa Library also applies a collaborative and networked development model. It operates across 11 branches and coordinates closely with city departments. Vantaa actively supports citizen-led content creation and network formation, particularly around themes such as gaming and music literacy and robotics. Staff from different branches participate in thematic networks, enabling Vantaa to function as a platform for encounters and innovation with a strong emphasis on horizontal collaboration.

Vienna’s libraries seek to function as innovation intermediaries and network enablers through their various partnerships. They maintain input networks, which are generally stable and formalized through contractual agreements with organizations such as PROSA and the University of Vienna. These networks often emerge informally from employees who belong to local associations, reflecting a bottom-up approach to partnership development. Criteria for new collaborations include resource availability, alignment with the library’s profile (free access, public value, and connection to city initiatives), and the partner’s reputation and objectives. In contrast, output networks are more ephemeral, focusing on enabling encounters rather than long-term, stable relationships. The library provides spaces where these encounters can occur and potentially evolve into social relationships, friendships, or study groups. This emphasizes the library’s role as a meeting place and “community center.”

As such, the investigated public libraries act as intermediaries and enablers to varying degrees across Library A, often shaped by political constraints, resource availability, and institutional mandates. While some libraries (e.g., Vantaa and C3) demonstrate robust network facilitation, others (e.g., Frederiksberg) focus more on maintaining a community presence than actively brokering innovation. Stronger intermediary roles are possible, but require strategic investment, cross-sector partnerships, and organizational support.

Library B: Locally embedded ideal type



In Library B settings, libraries play a more passive role in innovation, focusing instead on hosting spaces, bridging social worlds, and supporting emergent networks. These libraries cultivate relational infrastructure, allowing innovation to arise organically through shared use, dialogue, and collaboration.

Rentemestervej Library is an example of a place-based intermediary model where the library serves as a “transparent space” for community interaction. The library enables citizens to take the initiative, fostering a sense of togetherness and shared ownership. Although there are formal collaborations with other units and institutions, the emphasis is on facilitating and encouraging user-led initiatives, such as “book activism.” The library’s network-enabling function focuses on empowering citizens to connect through shared space and purpose.

The PBR Library is depicted as a proactive innovation intermediary, with partnerships forming the backbone of its operations. It connects “small worlds” -- such as childminders, teachers, artists, and publishers -- that typically operate in isolation. By connecting these groups, PBR fosters new collaborative ecosystems that often outlive the initial project. Its ability to work flexibly across geographic and institutional boundaries enables it to extend networks beyond the local context while strengthening local professional communities in public reading and education. PBR’s intermediary role is strategic and relational, aiming to sustain innovation through durable partnerships.

MediaLab describes itself as a network catalyst, shifting from a “command and control” model to one of facilitation and emergence. Its mission is to foster synergies among institutions and knowledge nodes by connecting ideas, people, and practices. MediaLab also intends to encourage dialogue among civic, cultural, and scientific institutions, enabling community building through interdisciplinary collaboration. Rather than prescribing outcomes, it aims to create the conditions for innovation to unfold, embodying the ethos of a living, evolving intermediary.

In Library B settings, the intermediary role is defined by hosting, connecting, and enabling rather than directing. These libraries support network formation by providing inclusive spaces for interaction, connecting institutional and community actors, and encouraging emergent, user-driven innovation.

Library C: Advanced ideal type

In Library C settings, public libraries are designed to deliberately act as innovation intermediaries and network enablers.

For instance, the Veria Library is considered a community-centered intermediary, collaborating with schools, local communities, and outside companies to create value together. The library offers space and equipment, such as a sound studio, as well as know-how. It relies on volunteers and external agents for expertise and funding. Staff members refer to themselves as “community librarians” or “social servants,” emphasizing the library’s role in connecting people, combating loneliness, and enabling learning and action through shared spaces and purposes.



Another example is the Dokk1 Library, which is designed to facilitate interactions among citizens from diverse backgrounds and creating learning communities. It also intends to serve as a social and work space that supports the development of digital skills and storytelling through its media lab, giving people a voice on social media. The library also connects with global library networks via initiatives like Next Library, promoting international collaboration and idea exchange. Its intermediary role is rooted in community engagement, knowledge sharing, and cross-sector connectivity.

Similarly, Oodi aims to foster collaboration among citizens, partner organizations, and third-sector groups. Spaces like Verstaas serve as hubs for grassroots innovation. Oodi also supports self-directed activities, enabling users to create podcasts, start businesses, or form youth networks around shared interests. Oodi's design and operations promote democratic participation, social interaction, and network formation, making it a platform for civic innovation.

The C3 Library leverages its thematic focus and extensive networks to connect global issues with local communities, particularly marginalized groups. Its services are interdependent, with one initiative often leading to new stakeholder engagement. The Living Library and the young research initiative foster networks of NGOs, academics, activists, and educators. C3 operates with input networks (expert and stakeholder ties) and output networks (citizen and community engagement), achieving a high input-to-output ratio that sustains innovation and visibility.

Thus, across C3 Library settings, public libraries are created for innovation, serving as intermediaries, connectors, and enablers of collaborative ecosystems. They facilitate multi-sectoral partnerships and empower partners, users, and communities to lead change, thus enabling innovation.

13.7 How public value is understood in the context of co-innovation and co-creation at public libraries; individual needs versus common good, and potential conflicting views

Brief summary of ideal types: Library A understands public value as a dynamic interplay between personal needs and societal goals. They strive for inclusivity but must navigate tensions between individual expression and institutional neutrality, especially in politically sensitive contexts, sometimes raising concerns that co-creation benefits affluent groups disproportionately. Library B employs a relational and community-oriented lens, prioritizing social cohesion, equity, and democratic access within a local setting. Tension arises between providing universal public services and offering necessary targeted support for marginalized or vulnerable groups. Library C views public value as a deeply embedded, multidimensional construct rooted in democracy, inclusion, and innovation. They proactively seek to balance individual empowerment with extensive collective benefit (e.g., technological equity, community dialogue), positioning themselves as essential civic institutions.

Library A: Classical ideal type



These libraries strive to serve personal development goals and societal missions. However, tensions can arise when values conflict or inclusivity challenges institutional neutrality.

As such, Sparta Library conceptualizes public value as having both short- and long-term impacts. In the short term, the library supports local needs by offering educational and cultural opportunities. In the long term, the library fosters community loyalty and reciprocity, with alumni returning to contribute. The director views the library as a place where knowledge and culture are cultivated and shared. Strategic partnerships with local and international organizations is seen to enhance societal value creation; however, the emphasis remains on inspiring individuals to give back by blending personal growth with communal benefit.

Frederiksberg Library frames public value within a politically guided mission that promotes literature, enlightenment, education, and cultural access. The library supports individual needs, such as the joy of reading and literacy skills, while struggling to maintain its role as a peaceful and safe public space. However, its apolitical stance may be challenged when activism or minority voices dominate, creating conflicts of interest. The drag show debate mentioned earlier revealed the difficulty of accommodating diverse voices while maintaining neutrality and proportionality. This highlights the fragility of public value when individual expression intersects with supposedly collective norms.

The Lilliad Library approaches public value through the lenses of heritage preservation, open science, and human-centered design. Its user experience (UX) approach aligns with humanist values, promoting critical thinking and access to knowledge. Its online services and curated collections support individual learning and societal resilience against misinformation, establishing the library as a guardian of informed citizenship.

Vantaa Library seeks to link individual benefits, such as literacy, skill development, and personal well-being, to broader societal outcomes, such as economic resilience, inclusion, and equality. Public value is generated through free access to services and spaces, which enables citizens to participate fully in society. The library is seen as a platform for societal functioning where individual empowerment contributes directly to the common good.

Public value in Vienna's libraries is understood through multiple lenses, ranging from legal definitions to societal impact. It encompasses democratizing access to knowledge, culture, and entertainment while countering the commercialization of digital content. Libraries are considered value-neutral democratic spaces open to all opinions within legal bounds. Libraries aim to be community centers and town centers that facilitate civic engagement and provide low-threshold, consumption-free public spaces, which are increasingly important. This includes meeting a wide range of needs and providing safe spaces, particularly for vulnerable groups. The main library's landmark architecture and strategic location as a "placemaker" connecting diverse districts also contribute to public value by fostering encounters across social backgrounds. However, a core conflict exists between serving individual needs (e.g., noise from activities versus quiet study) and the common good (e.g., ensuring access for



all). There is also criticism that co-creation might disproportionately benefit affluent and vocal groups by addressing demand rather than true underlying needs.

In summary, in Library A settings, public value is understood as a dynamic interplay between personal needs and societal goals. Libraries strive to be inclusive, responsive, and democratic but must also navigate tensions between individual expression and institutional neutrality, particularly in politically sensitive contexts. The challenge lies in sustaining legitimacy while embracing diversity and ensuring that co-creation serves both personal empowerment and the common good.

Library B: Locally embedded ideal type

In Library B settings, public value is often interpreted through a relational and community-oriented lens. These libraries prioritize interpersonal connections and democratic engagement within a local setting. However, they also, like library A, face tensions between individual preferences and collective values, especially when dealing with diverse user groups and institutional expectations.

Rentemestervej Library reflects this dual understanding of public value. Policy documents tend to emphasize individual preferences -- “what the public values” -- suggesting a more consumer-oriented view. In contrast, employees emphasize relational and societal value, highlighting the library’s role in fostering social cohesion, literacy, and democratic potential. Staff view culture and literature as tools for fostering interpersonal understanding and countering silo thinking, particularly during polarizing times. The library is also seen as a place to combat loneliness. However, there is concern that increasing commercialization, similar to bookstores, could undermine democratic principles and shift the focus away from the common good.

The PBR Library has historically framed public value as addressing social and geographic inequalities by providing disadvantaged children with access to books and culture. The library aims to promote peace, open-mindedness, and future civic engagement. Public value is also tied to institutional recognition of PBR’s expertise. However, a political debate revealed tensions between “public services” (state-funded and universal) and “services to the public” (potentially privatized or targeted), raising questions about equity and access. PBR’s work with families lacking “social capital” highlights its dedication to fostering individual growth, such as building self-confidence through reading, as a means of contributing to society. Nevertheless, the tension between providing targeted support and ensuring universal access remains.

MediaLab articulates public value as “democratizing access to knowledge and innovation,” aiming to include diverse users through new experiences. Its institutional role in promoting stakeholder participation positions MediaLab as a social transformation agent, especially through specific initiatives like BiblioLab. Public value is reflected in collaborative outcomes that improve social conditions when reintegrated into the community. The emphasis on DIY/DIWO (do-it-yourself/do-it-with-others) philosophies highlights a shift toward shared value creation, where individual creativity



contributes to collective empowerment. However, this model is seen to require careful balancing to ensure that open participation does not inadvertently exclude less confident or less connected users.

In summary, public value in Library B is understood as a relational and participatory construct rooted in community engagement, equity, and democratic access. These libraries strive to empower individuals while strengthening the social fabric. However, they must navigate conflicting expectations between personalization and universality, innovation and tradition, and openness and structure. The challenge lies in maintaining inclusivity while fostering meaningful co-creation that serves both individual needs and the common good.

Library C: Advanced ideal type

In Library C settings, public value is deeply embedded in the library's design, mission, and operational logic. These libraries strive to balance individual empowerment with collective benefit and often position themselves as civic institutions that promote democracy, inclusion, education, and innovation. However, the complexity of their roles and the diversity of their user bases can lead to conflicting views and tensions between personalization and public value.

Thus, Veria Library views public value as multifaceted, encompassing free access to knowledge, lifelong learning, and community building. Staff view individual needs and the common good as interwoven, believing that culture and education foster critical thinking and democratic citizenship. Financial constraints often necessitate creativity and external support, which can challenge the sustainability of public value initiatives and raise questions about equity and access.

The Dokk1 Library articulates public value through themes of democracy, citizen empowerment, and social resilience. It aims to be a multidimensional institution that balances traditional roles with experimentation. Public value is created by supporting learning, combating misinformation, and ensuring equal access. However, the relational approach, which emphasizes dialogue and co-creation, can, as previously mentioned, exclude some users, particularly those who are uncomfortable with participatory formats. This shows a tension between inclusive ideals and practical accessibility.

Oodi offers one of the most comprehensive articulations of public value. It encompasses: democratic functions, community dialogue and social cohesion, empowerment through co-creation, symbolic roles as a landmark of Nordic democracy, cultural and educational access, technological equity, sustainability and the circular economy, and mental well-being and adaptability. Oodi's commitment to welcoming everyone is central to its public value ethos. However, it must navigate inherent tensions, such as balancing freedom of expression with equality or maintaining its boundaries of purpose (e.g., resisting pressure to become a health service provider). These tensions reflect the complexity of serving diverse publics while maintaining a coherent institutional identity.

Vienna's C3 Library anchors public value by bridging local and global contexts, especially for less affluent or marginalized groups. It promotes citizenship, participation, and knowledge transfer by



offering services that support individual agency and collective transformation. However, engaging groups that have negative associations with formal education (e.g., youth over 15 years old and migrants) presents challenges. The library must navigate conflicting perceptions of value to ensure that its inclusive mission does not alienate the very people it seeks to empower.

Bibliotheek De Krook understands public value as a blend of short-term individual benefits (access, empowerment, and engagement) and long-term societal gains (education, innovation, and sustainability). DHW and the Library Living Lab (LLL) define public value in terms of heritage, open science, and scientific literacy, thereby promoting critical thinking and access to knowledge. The LLL repositions libraries as agents of social transformation but also reveals tensions between stability and innovation and between universal access and responsive adaptation. A key challenge is institutional ownership, as some public entities remain hesitant to fully embrace the living lab model.

As such, across library C settings, public value is understood as a dynamic, multidimensional construct rooted in democracy, inclusion, education, and innovation. These libraries strive to empower individuals and transform communities but must navigate conflicting expectations, limited resources, and institutional boundaries to fulfil their missions.

13.8 Success criteria for citizen engagement and co-creation

Brief summary of ideal types: Library A primarily relies on a combination of quantitative output metrics (visitor numbers, participation rates, loan statistics) and basic qualitative feedback. However, they often struggle with a deficiency in measuring outcomes or long-term societal impact beyond basic attendance figures due to institutional limitations. Library B utilizes criteria that are often implicit, contextual, and qualitative, focusing on relevance, user experience, relational depth, and community resonance. While quantitative outputs are used, they prioritize social inclusion and are critical of metrics based solely on volume or efficiency. Library C employs a multidimensional and holistic approach, combining quantitative outputs with transformative indicators to capture social impact, community empowerment, and network resilience. They use comprehensive feedback mechanisms and evolving evaluation frameworks to reflect their broad understanding of innovation and civic engagement.

Library A: Classical ideal type

In Library A, success in citizen engagement and co-creation is typically evaluated using a combination of quantitative metrics, qualitative feedback, and community impact indicators. However, political constraints and institutional boundaries can limit the scope and consistency of these practices. Libraries in this category tend to focus on usage statistics, service quality, and community relevance while grappling with the challenge of measuring long-term societal impact.

Sparta Library defines success through quantifiable outputs, such as: visitor numbers, participation rates in workshops and seminars, and the frequency of collaborations and co-created initiatives. Outcomes are assessed via user satisfaction and service quality. Tools like the LibQual questionnaire have been introduced to better understand audience expectations. The director has suggested using



AI technologies to gather qualitative feedback, indicating a desire to enhance the sophistication of evaluations. External stakeholder support, such as donations or volunteer involvement, is also seen as a proxy for recognized community value and contributes to the library's perceived impact.

Frederiksberg Library uses usage volume as a primary success criterion — being “used as much as possible” by citizens, especially for promoting children’s literacy. While formal co-creation metrics are not detailed, success is inferred from the library’s ability to function as a community hub, its role in supporting literacy and cultural engagement, and the presence of a peaceful, safe public space. The input network of volunteers is also acknowledged as a contributor to success.

Lilliad Library employs a multi-tiered evaluation system that includes: attendance statistics and surveys, loan and document consultation rates, user feedback on new services (e.g., chatbots, collaboration requests). Dashboards are used to monitor performance and guide collection management by adapting purchases based on turnover rates and usage patterns. Although digitalization complicates traditional metrics, Lilliad’s approach reflects a data-informed strategy for assessing output and outcomes.

Vantaa Library links success to its broader mission of fostering an inclusive city. Success criteria include: regular user engagement, interaction, and inclusion; skill development; literacy improvement; and support for family relationships. These indicators reflect a community-centered outcome orientation where individual empowerment contributes to societal resilience.

For the Vienna libraries, however, success criteria measurement is currently limited and primarily focuses on visitor numbers. Other forms of documentation are scarce, largely due to data protection concerns. During the Corona pandemic, the main library implemented a ticketing system for seat planning, which provided unique insights, but it was not used for all events. While some usage statistics are collected, there is very little output and impact measurement beyond basic attendance figures. This is seen as a significant area for improvement. Currently, measurements primarily capture output (e.g., number of visitors) rather than outcomes or impact. Outcomes and impact would reflect how services contribute to public value, such as enhanced community functioning, improved digital literacy, and democratic engagement. To better assess public value beyond traditional literacy, future metrics could focus on qualitative feedback regarding user empowerment, the social cohesion fostered by meeting spaces, and the extent to which services reach previously underserved groups. This approach would capture true societal needs, going beyond easily articulated demands.

Library B: Locally embedded ideal type

In Library B settings, the success criteria are often implicit, contextual, and qualitative, reflecting the libraries’ role as community hosts. While some institutions have developed structured indicators, others use narratives about relevance, user experience, and community resonance to evaluate their impact.



Although Rentemestervej Library does not explicitly define success metrics in interviews, several implicit criteria emerge. Tailoring services to local needs; reflecting the library's role in an inclusive city; increasing regular user engagement, especially through interaction, inclusion, and skill development; and addressing specific challenges, such as declining literacy rates. At the operational level, success is gauged through qualitative indicators such as: The library's continued relevance to citizens and the positive subjective experiences of users. Staff take a critical stance toward efficiency, suggesting that libraries should "move slow" to foster deeper engagement. A tension exists between visitor numbers and book loans, raising questions about how success is defined — volume versus depth of engagement.

The PBR Library employs a dual approach to measuring success: Quantitative indicators (outputs), such as the number of books purchased, sessions offered, attendance figures, new reader cards, and loans, as well as qualitative indicators (outcomes and impact), such as geographical reach, network development, and publications. The second is qualitative indicators (outcomes and impact), such as geographical reach, network development, and publications. Since 2018, PBR has improved its data collection and analysis, including social media statistics, to better understand user engagement and justify its role as an associative library. Annual reviews of statistics inform strategic planning and help align future programming with observed needs and trends. This structured approach supports accountability and fundraising efforts while maintaining a focus on social impact.

MediaLab acknowledges that establishing effective metrics is a persistent challenge, reflecting the complexity of evaluating fluid, emergent co-creation processes. MediaLab uses a "Social Challenge–Action–Return" framework, where: "Challenge" defines the societal issue addressed, "Action" outlines the intervention, and "Return" captures the outcome and stakeholder commitment. Qualitative feedback is gathered through open-ended conversations with users, offering rich insights into the impact of co-innovation. However, achieving financial sustainability and scalability remains challenging, suggesting that success hinges not only on engagement, but also on institutional resilience and long-term viability.

In Library B settings, success is measured by a combination of quantitative outputs, qualitative outcomes, and narratives of community relevance. These libraries prioritize relational depth, social inclusion, and user empowerment but struggle to develop standardized metrics that capture the transformative potential of their work. The tension between formal accountability and informal community impact remains a central theme.

Library C: Advanced ideal type

In Library C, the success criteria are increasingly multidimensional, combining quantitative metrics, qualitative insights, and transformative indicators. These libraries aim to capture usage and participation as well as social impact, network formation, and community empowerment. However, there are still challenges in developing flexible and meaningful frameworks that reflect the full scope of co-creation and innovation.



Veria Library relies on quantifiable measures such as: visitor numbers, workshop and seminar participation, and book loans. Yet, staff recognize that non-measurable indicators, such as foreign schools visiting due to the library's reputation or users spending time in the space beyond borrowing, are equally important. Suggestions for improvement include: Regular feedback sessions, qualitative assessments of service impact (e.g., combating loneliness), tracking long-term community benefits. Yet, staff emphasize that "nurturing citizens of tomorrow" cannot be fully captured by statistics alone.

The Dokk1 Library distinguishes between direct and indirect outcomes. Direct outcomes includes user satisfaction, visitor numbers, the diversity of formats, and user ownership, and indirect outcomes include societal impact, including promoting democracy, enhancing access to knowledge, and combating misinformation. These outcomes are measured through daily activity tracking, partnership records, and user diversity metrics, as well as broader reflections on the library's civic role.

Similarly, Oodi uses a comprehensive set of success criteria, including inclusive participation across demographics; effective co-creation processes; continuous feedback mechanisms (e.g., social media, feedback boxes, and staff-user interactions); community self-management; third-sector partnerships; adaptability to changing needs; creation of collaborative spaces; and a focus on social value (e.g., mental well-being and civic engagement). Oodi's philosophy of being "never truly finished" reflects its evolving nature. However, challenges remain in ensuring inclusive access, especially for undocumented individuals or those without digital tools. These limitations underscore the necessity of more inclusive design and measurement frameworks.

Vienna's C3 Library does not use standardized tools to measure co-creation. Instead, it applies activity-specific assessments, such as: feedback forms for workshops and a review of work submitted for the C3 Award. The library reflects on its ambitions, targets, and service effects. However, it avoids direct pre/post knowledge assessments, considering them to be less meaningful in its context. This suggests a preference for reflective, qualitative evaluations that focus on engagement depth rather than quantitative change.

Consequently, success criteria for citizen engagement and co-creation are evolving across library settings. While output metrics (e.g., attendance and participation) are commonly used, there is a growing interest and need in the libraries in outcome and impact measures, such as user satisfaction, community relevance, and social cohesion. The challenge lies in developing robust, context-sensitive evaluation frameworks that can capture the broad and inclusive understanding of innovations and transformative potential of (value) co-creation in politically constrained environments. Success criteria are evolving toward holistic, impact-oriented models. While quantitative outputs remain important, there is a growing recognition of the need to measure qualitative outcomes, community transformation, and network resilience as well as create understanding of specific contexts in which innovations emerge and where libraries can create the most meaningful change.

13.9 Summary

The cross-case comparison of the investigated European libraries highlights several key conclusions regarding their evolving roles, innovation approaches, and understanding of public value.



1. Objective & legitimacy: Evolving purpose and democratic anchoring

- Libraries are transcending their traditional roles as mere lending centers to become multifaceted hubs for education, culture, lifelong learning, and community engagement. Some, like the C3 Library, are hybrid institutions combining elements of public, research, and community libraries.
- A central theme is their role as democratic cornerstones, promoting free access to knowledge, information literacy, critical thinking, active citizenship, and freedom of expression. They are seen as a “bulwark against fake news” and as neutral public spaces.
- Legitimacy is derived from being inclusive and accessible to all, particularly emphasizing low-threshold access and support for diverse and marginalized groups, such as youth, immigrants, those with disabilities, and socially vulnerable.
- Some libraries, like the Dokk1, explicitly connect global challenges with local contexts, aiming to empower diverse populations to address complex societal issues.

2. Co-creation & co-innovation: User-centric and experimental approaches

- An increasing emphasis is placed on active user involvement, moving from passive consumers to co-producers/co-creators of library services. This often involves a “moderated co-creation” approach, where services are initially defined broadly by library professionals and then refined with the community.
- Common methodologies include incorporating user feedback, conducting design thinking workshops, surveys, focus groups, and drawing insights from daily interactions. Activities are often experimental due to the challenging goals. In some cases, like Oodi and Dokk1, citizens are encouraged to actively contribute to co-creation of services.
- Key obstacles to broader co-creation include tight funding policies focusing on measurable results, which can limit critical analysis and exploration of relevant topics. There is also a concern about selection bias, potentially engaging only those already interested.

3. Front-end employee competencies: Shifting roles and demand for soft skills

- The role of library staff is undergoing a radical change, broadening from traditional tasks like documentation and cataloguing to becoming facilitators, educators, knowledge bearers, digital facilitators, tech mentors, and networkers.
- New, crucial competencies include digital proficiency, relational skills (e.g., active listening), emotional intelligence, problem-solving, flexibility, and adaptability. Many libraries also emphasize the importance of multidisciplinary teams to tackle complex issues.
- This shift often leads to internal conflicts over professional identity and challenges in acquiring necessary new skills, sometimes due to a lack of specialized staff or adequate training.

4. User/citizen role: From recipients to empowered contributors

- Citizens are increasingly viewed as active participants and co-creators in the development and delivery of library services. Their input directly informs innovation processes.
- Libraries aim to engage diverse user groups, including youth (a challenging age group to reach, often dropping off from library around age 14), marginalized populations, and multilingual families.



- The goal is to empower users for informed decision-making and to take initiative within the library space. However, reaching non-users and ensuring truly diverse participation remains an ongoing challenge.

5. Other stakeholders: Expanding networks for enhanced value

- Libraries widely engage in collaborations with diverse external stakeholders, including carrier organizations, federal agencies, universities, NGOs, schools, local companies, cultural institutions, foundations, and professional associations.
- These partnerships are crucial for mobilizing resources, sharing expertise, and extending the library's reach and impact beyond its immediate premises.
- Collaborations are often based on shared objectives and strategic alignment, contributing to the library's overall public value goals.

6. Innovation intermediary/network enabler: Fostering connections and learning communities

- Many libraries see themselves as innovation intermediaries and network enablers, facilitating connections among citizens, creators, and various organizations.
- They act as knowledge hubs for interdisciplinary collaboration and as platforms for democratic participation.
- Providing physical and virtual spaces for encounters is key to fostering learning communities and social relations. Network formation is often driven by thematic projects, leveraging "strength of weak ties". Some initiatives specifically aim for scalability across a wider network of libraries.

7. Public value understanding: Multifaceted, intangible, and often contested

- Public value is consistently defined with a dual focus: the individual benefit and the common good. It encompasses a wide array of benefits beyond traditional library services, including education, culture, dialogue, social cohesion, critical thinking, democracy, personal development, well-being, and addressing social issues like inequality and loneliness.
- The physical space of the library is emphasized as a core value proposition, providing a low-threshold, open, safe, and welcoming environment for various activities and interactions.
- There can be inherent tensions or paradoxes in defining public value, particularly between political/efficiency mandates (e.g., emphasizing quantitative measures) and the more intangible social or relational values. Many acknowledge that some of the most profound impacts, such as strengthening democracy or fostering social cohesion, are difficult to quantify.

8. Success criteria: Balancing quantitative metrics with qualitative insights

- Libraries typically track quantitative measures such as visitor numbers, participation in events, new library cards, and book loans/consultations to assess success.
- There is a growing recognition and implementation of qualitative feedback mechanisms including, in-depth interviews, focus groups, and analysis of daily interactions, to understand service quality, user satisfaction, and the deeper impacts of co-creation.
- A significant challenge remains in measuring long-term impact and the more intangible, relational, or democratic outcomes of co-creation initiatives. Some cases explicitly note the need to move beyond



“one-shot projects” and develop adaptable metrics for scalability as well as broad and inclusive understanding of innovations and transformative potential of (value) co-creation in libraries.

- The ability to demonstrate success, both quantitatively and qualitatively, is crucial for justifying public and private funding and proving the library’s continued relevance. This is reflected as a need to develop more holistic, impact-oriented models.

In summary, the cross-case comparison reveals a quite diverse landscape of European libraries, each adapting to contemporary societal needs by engaging in different models of libraries as living labs. While some maintain a more traditional, management-driven approach to innovation (Type A), others are more deeply embedded in community-led, informal co-creation (Type B), or adopt strategic, design-thinking methodologies to empower citizens and foster ownership (Type C). Most libraries exhibit hybrid characteristics, blending elements from multiple models to serve their unique communities.

14 Models of living labs

Based on the literature review, the cases and the cross-case comparison, public libraries adopting Living Lab principles were categorized into three ideal types, each representing distinct contexts and approaches to co-creation and co-innovation (Table 11):

Table 11: The library ideal types and topics investigated

	Library A Classical ideal type	Library B Locally embedded ideal type	Library C Advanced ideal type
Objectives and legitimacy	Strong focus on enlightenment, education, and access to culture	Community hosts, embracing an open-ended, participatory approach to public engagement	Architected to foster innovation, experimentation, and co-creation; proactively shaping public value, rather than merely reflecting it
Co-creation approach	Moderated and staff-led; users contribute but rarely shape strategy	Ad hoc, relational, and volunteer-driven; library hosts rather than directs	Embedded in architecture and governance; users co-design services and spaces
Employee competences	Adaptability, soft skills, digital literacy, facilitation; evolving from traditional roles	Relational and mediation skills; community familiarity; flexible and interdisciplinary profiles	Design thinking, interdisciplinary collaboration, emotional intelligence, and innovation facilitation
User role	Participants in events and feedback; limited strategic influence	Contributors and co-creators in informal settings; often mediated by staff	Strategic partners in planning, design, and evaluation; empowered through participatory infrastructure
Stakeholder role	Supportive but peripheral; local businesses, NGOs, and municipalities contribute resources and expertise	Strong partnerships with civic, cultural, and educational actors; libraries bridge "small worlds"	Deeply integrated multi-sectoral collaboration; quadruple helix models and distributed innovation networks
Innovation Intermediary Role	Limited but growing; connects creators to networks, supports entrepreneurship	Hosts community interaction; enables spontaneous networking and social cohesion	Architected for innovation; facilitates multi-level collaboration; intended to contribute to solve "complex problems"
Public value understanding	Balancing individual support and societal benefit; literacy, culture, and education as democratic tools	Relational and inclusive; libraries counter loneliness, promote peace, and democratize access	Multifaceted and systemic; libraries as civic platforms for democracy, inclusion, sustainability, and innovation
Success criteria	Quantitative metrics (LibQual, attendance); emerging interest in qualitative impact	Mixed methods; informal feedback, annual stats, and social media; tension between efficiency and depth	Holistic and evolving; combines KPIs, feedback loops, and transformative indicators; challenges in capturing full impact

Type A: Classical libraries ideal type: These libraries operate within politically or strategically defined frameworks and comprehensive, long-term strategies, often focusing on domain-specific service innovation like literacy and education. While they show Living Lab potential, user influence is typically limited but informative, with development primarily led by library professionals and management. Co-creation is often pragmatic, event-based, and reactive to external pressures, rather than a continuous, embedded practice. Staff transition from traditional roles to facilitation and community engagement, acquiring new technical and interpersonal skills, but face political constraints. User involvement is most visible in programmatic, ad hoc activities and through feedback, with co-innovation activities largely profession- and leadership-driven. External stakeholders play a supportive but often peripheral



role, constrained by institutional boundaries. Their intermediary role is present but often limited by political structures and resources. Public value balances individual needs (e.g., joy of reading) with societal missions (e.g., civic engagement), but tensions can arise from political sensitivities or conflicting values. Success is measured through usage statistics, participation rates, and service quality, with challenges in assessing long-term societal impact.

Type B: Locally embedded ideal type: These libraries function as Living Labs by serving as community hosts, embracing an open-ended, participatory approach. They adopt a more informal approach to public value creation, addressing local challenges through social innovation and cultural experiences, driven by a strong community spirit that encourages active citizen participation. Co-creation is less about formalized processes and more about enabling spontaneous, user-led initiatives within a supportive environment. Staff competences are shaped by relational work, adaptability, and the ability to mediate diverse user needs, acting as community connectors and trust-builders. Users are viewed less as strategic co-designers and more as community contributors, whose engagement is often informal or ad hoc. External stakeholders are collaborative and enabling, facilitating partnerships that support user-driven initiatives. Their intermediary role focuses on hosting spaces, bridging social worlds, and supporting emergent networks. Public value is interpreted through a relational and community-oriented lens, prioritizing interpersonal connection and democratic engagement, while navigating tensions between personalization and universality. Success criteria are often implicit, contextual, and qualitative, reflecting narratives of relevance and user experience.

Type C: Advanced ideal type: These are high-profile libraries that have Living Lab characteristics from the outset, pursuing innovative, long-term strategies. They employ design thinking and co-creation methodologies, promoting citizen ownership and deep engagement. Co-creation principles are embedded from the outset through architectural design, strategic planning, and service development. Staff are intentionally cultivated to support innovation, user-centered design, and participatory development, acting as co-creators and technological guides. Users are not only participants but co-designers and co-owners of library services and spaces, involved from the earliest stages of ideation through to implementation. External stakeholders are deeply embedded in the co-creation ecosystem, involved in co-defining priorities and co-implementing programs. Libraries explicitly define themselves as innovation intermediaries and network enablers, facilitating connections and fostering learning communities. Public value is deeply embedded in the library's design and mission, aiming to balance individual empowerment with collective benefit, often positioning themselves as civic institutions promoting democracy and innovation. Success criteria are multi-dimensional, combining quantitative metrics, qualitative insights, and transformative indicators, though challenges persist in developing flexible frameworks.

While each library is unique, many exhibit a blend of characteristics from these ideal types. The cross-case analysis highlights common challenges across all types, such as attracting only specific user groups, and the inherent tensions between serving individual needs and the common good.



15 Stakeholder model including citizens

The case-studies clearly indicate, that public libraries increasingly engage a diverse set of internal and external stakeholders (such as local schools, theatres, etc.) to improve services and achieve stakeholder objectives, with citizens playing an evolving role.

Citizens/users:

Active participants and co-creators: Citizens are increasingly viewed as active participants and co-creators in the development and delivery of library services, with their input directly informing innovation processes, either as active co-creators of new services or more passively giving feedback to services.

Empowered contributors: For users involved in active co-creation, the goal is to empower users for informed decision-making and to take initiative within and beyond the library space, moving from passive recipients to empowered contributors, and supporting citizenship.

Diverse engagement: Libraries aim to engage diverse user groups, including youth, marginalized populations, and multilingual families. Reaching non-users and ensuring truly diverse participation remains an ongoing challenge.

Varying influence: User roles vary significantly across library types, from providing feedback and participating in events (Type A) to informal contributions and peer education (Type B), and ultimately to co-designing and co-owning services and spaces (Type C).

Other stakeholders:

The investigated libraries widely engage in collaborations with a broad spectrum of external stakeholders, which are crucial for mobilizing resources, sharing expertise, and extending the library's reach and impact. These include:

Public and institutional partners: This encompasses municipal administrations, public agencies, universities, research centers, schools, kindergartens, healthcare districts, and other cultural institutions (e.g., museums, theatres). These partnerships are often but not always formalized and contribute expertise.

Civil society organizations (CSOs) and non-governmental organizations (NGOs): Groups like local associations, non-profits, activist groups, and community organizations are crucial partners. They provide specialized competencies, volunteer support, attract new users, and collaborate on program development, often gaining access to library space.

Private actors: This category includes local businesses, companies, and individuals, who contribute through donations, funding, expertise, and logistical support. Private sector involvement, while sometimes modest, may be growing and become more important for sustaining innovation and relevance, especially for libraries with limited public funding.



Foundations and funders: These bodies provide project grants and long-term network support, reinforcing the library's role as a trusted community anchor and enabling initiatives outside conventional funding structures.

Professional associations and networks: National and international library associations facilitate the exchange of ideas and best practices, contributing to professional development and broader innovation ecosystems.

Internal stakeholders: Beyond front-line staff (who are key in bridging the library with its ecosystem), this includes library management and directors who drive strategic vision and cultivate relationships.

The depth of stakeholder collaboration varies, from consultative approaches where external input is valued but not decisive (Type A), to facilitating partnerships through community hosting (Type B), and to deeply embedded, systematic, and multi-level collaboration where stakeholders co-define priorities and co-implement programs (Type C).



16 Recommendations for policy and research

The cross-case analysis reveals critical insights for shaping future policy and research directions for public libraries as Living Labs:

Enable a hybrid approach to innovation (top-down & bottom-up):

Policy should recognize that successful co-creation often blends strategic, top-down mandates with organic, bottom-up community initiatives, and encourage frameworks where municipal priorities are combined with mechanisms for citizen input to ensure that local creativity complements broader societal objectives. Libraries can be mandated by municipalities to address societal issues (e.g., Dokk1), while also thriving when mobilized by volunteer networks, activist groups, or user-led initiatives (e.g., Rentemestervej, Sparta). As a managerial implication, libraries might consider setting up flexible governance and organisational structures that allow both strategic goals and community-driven ideas to coexist. Management should be a balancing act between supporting employee initiatives and providing strategic direction.

Research should explore how to design institutional frameworks that encourage both structured innovation processes and spontaneous, emergent forms of co-creation, creating an environment where citizen initiatives are not just accommodated but actively nurtured and integrated into service development.

Strengthen multifaceted connectivity among all stakeholders:

Connectivity between users, library employees, library managers, partners, library networks, and policymakers is crucial and manifests in diverse ways. Libraries could explore practices that sustain interaction across user communities, staff, and partners, for example through regular co-creation workshops or digital platforms for idea exchange. Assigning roles dedicated to partnership development may further enhance this connectivity.

At the municipal or national level, policymakers should actively invest in the relational and technological infrastructure that enables interaction and knowledge exchange across these diverse levels and sectors. This includes supporting formal partnerships with public institutions, private companies, and civil society organizations, as well as creating informal networks among citizens and staff. Additionally, policies might promote participation in innovation networks and knowledge-sharing platforms, creating conditions for scaling successful local practices and ensuring that marginalized groups are not excluded.

Research could explore how libraries can enhance their role as innovation intermediaries and network enablers, leveraging formal partnerships casual encounters to build robust learning communities and enable social cohesion. This also involves developing strategies for scaling successful models and ensuring that stakeholders, including marginalized groups, have opportunities to connect and contribute.

Address resource constraints and manage inherent conflicts:



Resource constraints: Policymakers must provide stable and sufficient funding to overcome challenges such as tight funding policies focusing solely on measurable results, which can limit critical analysis and exploration of relevant topics. Adequate resources are needed for specialized staff, continuous professional development, and the time required for relational engagement with patrons and partners. Many library services are developed and funded by external projects. When these projects end, libraries should be able to accumulate and leverage the knowledge developed, as well as develop durable expertise and services. Libraries and library management should develop transparent procedures for addressing the challenges of losing project workers who have all the expertise and contacts, as well as the challenges of users becoming dependent on project-funded services and support.

Inherent conflicts: Politicians need to acknowledge and help manage conflicts arising from diverse user needs, political sensitivities, and evolving professional identities. This includes navigating tensions between serving individual preferences (e.g., quiet study spaces) and the common good (e.g., vibrant activity hubs). Libraries face challenges in maintaining institutional neutrality while accommodating diverse and sometimes controversial voices (e.g., Frederiksberg's drag show debate). As an implication, libraries could develop clear decision-making protocols for balancing competing user needs or introducing structured dialogue formats might help manage tensions and maintain neutrality. Additionally, policy should support libraries in ensuring inclusivity without disproportionately benefiting affluent or vocal groups for example by outlining principles for inclusive service design and conflict mediation, for instance by recommending stakeholder engagement processes that consider diverse voices without privileging dominant groups.



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Appendix A: Case Guidelines

1.2 Introduction

These guidelines provide templates for case-studies, i.e., questions to deal with/ talk around during interviewing, and templates for possible observations and document studies. The guidelines also include a format for reporting the cases.

Concerning criteria for selection of cases, we refer to the case selection criteria document. The selection of public libraries for intensive case studies is based on the case selection criteria, process and definitions of key term described in that document.

1.3 Case study objectives

According to the General Agreement, case-studies will explore, what public libraries as living labs tell or illustrate relative to new open institutional structures for co-creation and co-innovation of public library services, herein: practices, structures and outcomes. The case studies will put emphasis on how these institutional structures address individual and public values (and resolve conflicts between them), hence also analyzing how co-creation, co-innovation, experimental methods achieve legitimacy in the context of public library services.

1.4 Methods applied

The case studies are to be conducted as qualitative research and hence the methods mainly applied will be those of: semi-structured interviews, (participant) observations, document studies and focus groups. If partners want to supplement their studies with e.g., experimentation, action research, or service design methods and quantitative studies please notify the WP leader for developing a reporting format that is applicable for comparative studies.

The protocol consists of templates for data collection (that can be adapted and customized to the specific case study) and the final report.

1.5 Templates

Below we provide templates for interviewing, observation and document studies. We leave it to the partners to decide on the number of interviews, observations, and documents, but we provide these rather instrumental templates to ensure that we have a common focus which is in accordance with the General Agreement. Templates for the following investigations are provided below: Template for interviews with managers and front-line employees, template interviews at the strategic level, template for focus groups, template for observations and document studies.

Please provide introductory information to all research participants about the study (e.g., the development from more traditional library services to libraries co-developing and offering community services more broadly - we are interested in the implications of this shift in focus, and how it is related to public value creation.



1.6 Interview guide: public managers and front-line employees

Please conduct an appropriate number of interviews with managers and front-line staff.

Objective:

- To obtain knowledge of public libraries as living labs
- To obtain knowledge about strategies for co-creation and co-innovation in public libraries
- To understand how value is created through co-creation and co-innovation initiatives
- To understand how the actors perceive public value and citizen-orientation
- To understand the form of institutional work relative to co-creation and co-innovation public libraries engage in
- To create a knowledge base for creating action strategies for co-creation and co-innovation

For internal use only, please give information about interviewer and interviewees. Information about interviewees is only for internal use during the project period.

Name and role of interviewee	
Name of public library	
Name of interviewer and date	

Questions for interviews:

Please briefly describe your role

1. Please briefly describe the public library you are working at; its history and focus to day?
2. In your words; what is the main role of public libraries?
3. How do you collaborate with users/patrons/citizens in developing service offerings? Please give an example? Any other methods?
4. Which competencies as library staff are needed to engage in co-innovation/co-creation? What are the implications relative to the profile of librarians? Reflections on this?
5. Please provide examples of activities and initiatives, which are dependent on user/patron/citizen engagement and drive?
6. Are some forms of co-creation more feasible than others? Which and why?
7. What could be an obstacle in co-innovation and co-creation processes (culture, legislation, resources etc.)?
8. What is the value of public libraries (short-term vs. long-term value, individual vs. the common good)?
9. Who is creating this value?
 - a. The role of managers, front-line staff, public, private and civic organizations?
 - b. The role of citizens and communities in creating value?
 - c. Do external actors participate as individuals, group or collective?



- d. Do external actors participate in setting priorities, co-design, co-implementation, co-assessment?
- e. When and how are they involved?
- f. With what impact?
10. Whom is part of your network (external stakeholders/partnerships etc.)? what role do they play in co-development and co-innovation?
11. What is the role of the physical environment of the library for creating value? Does space/place matter? Why/why not?
How do you see the legitimacy of public libraries in the future? What can support that? What can hinder that?

1.7 Interview guide: strategic level (policy makers/politicians/top-management)

Please conduct an appropriate number of **interviews** with policy makers/politicians/top management.

Objective:

- To obtain knowledge of public libraries as living labs
- To obtain knowledge about strategies for co-creation and co-innovation in public libraries
- To understand how the actors perceive public value and citizen-orientation
- To understand the form of institutional work relative to co-creation and co-innovation public libraries engage in
- To create a knowledge base for creating action strategies for co-creation and co-innovation

For internal use only, please give information about interviewer and interviewees. Information about interviewees is only for internal use during the project period.

Name and role of interviewee	
Name of organization/department	
Name of interviewer and date	

Questions for interviews:

1. Please briefly describe your role
2. In your words; what is the main role of public libraries?
3. What is the value of public libraries (short-term vs. long-term value, individual vs. the common good)?
4. Who is creating this value?
 - a. The role of managers, front-line staff, public, private and civic organizations?
 - b. The role of citizens and communities in creating value?
 - c. Do external actors participate as individuals, group or collective?
 - d. Do external actors participate in setting priorities, co-design, co-implementation, co-assessment?



- e. When and how are they involved?
 - f. With what impact?
5. Which competencies as library staff are needed to engage in co-innovation/co-creation? What are the implications relative to the profile of librarians? Reflections on this?
6. Please tell a bit about barriers/drivers for co-innovation and co-creation in the public library context?
Whom is part of your network (external stakeholders/partnerships etc.)? what role do they play in co-development and co-innovation?
7. How could the impact of co-innovation and co-creation in the context of public libraries be measured?
8. How is the position of public libraries in the public sector changing?
 - a. Why is it changing and how is it changing?
9. How do you see the legitimacy of public libraries in the future? What can support that? What can hinder that?

1.8 Focus groups

If feasible/relevant please conduct **focus groups with users** with 6-8 participants in each.

Objective:

- To obtain knowledge on user/citizen perceptions of their role in public library services
- To understand how the impact of co-innovation and co-creation can be captured
- To understand how the actors perceive public value and citizen-orientation

For internal use only, please give information about interviewer and interviewees. Information about interviewees is only for internal use during the project period.

Role of interviewees	
Name of organization/department	
Name of interviewer (and note-taker) and date	

The discussion will be structured around the following themes (and herein questions):

The public library: Value outcome and processes

1. What is a public library to you?
2. What kind of value do a public library offer?

Actors in value creation of public library services

1. Who is creating the value of public libraries?
 - g. The role of managers, front-line staff, public, private and civic organizations?



2. How do you as public library service users contribute to value creation?
 - a. When and how are you involved?
 - i. As individuals, group or collective?
 - ii. In setting priorities, co-design, co-implementation, co-assessment?
 - b. With what impact?
3. How do you contribute as citizens and communities in creating value through public library activities?
4. What is the role of the physical environment of the Library for your contribution to creating value?

Perceptions of co-innovation and co-creation in the context of public libraries

5. How is the open co-innovation approach important for your contribution to creating value?
 - a. Do you experience co-innovation and co-creation as specific methods (or mindsets)?
 - b. Is it driven by scientific language or everyday language?
 - c. What is the impact of your contribution?

1.9 Participant Observation

If possible, we ask you to conduct observations within each case study. The observations should be of instances of patron/user/citizen participation in citizen-led and/or library-led activities and should examine the following:

- How are users/citizens participating?
- What role are front-line staff/ public managers playing in facilitating user/citizen participation?
- What role are front-line staff/ public managers playing in creating value?
- What is the role of service users/citizens in creating value?
- Are there any examples of value co-destruction and if so, how are these played out?
- What are the success criteria of the activities observed?

The observations will be conducted as either participant or non-participant observations and an open approach will be employed, using an unstructured observation sheet, given the different contexts being studied.

The observation sheets make a distinction between descriptive and reflective notes: the descriptive notes should be factual description of activities; the reflective notes should provide details about the observer's reflections on the interactions, specifically around the interplay between different actors, who it is being created by and how it is being created.

A pro forma observation sheet is provided below:

Public library/Location:
Date:
Start time:

End time:
People present (number and description of roles):
Activity/activities:
Context:

Description of activities and individual actions (chronological order)	Direct quotes	Reflections

1.10 Document studies

Relevant policy, project and organizational documents related to the case under study will be analyzed using thematic analysis. This will be conducted as a complementary element of the research design, adding both to the contextual understanding of the case studies and permitting the exploration of organizational discourses on citizens, public value and co-creation.

It is envisaged that **3-5 documents** will be analyzed for each case study. The documents will be gathered from respondents, from organizational websites or from applicable government policies (where available). The types of documentation are likely to include organizational information from websites, minutes of meetings, annual reports and/ or likely documentation.

In the final report please use the following table for reporting:

Type of document	Key terms applied	Definition/ understanding of the role of public libraries AND librarians	Definition/ understanding of co-creation and co-innovation	Main actors referred to	Perception of value created and to whom	Success factor for co-created activities and initiatives

1.11 Final report

All fieldwork should be conducted and reported to RUC by **October 1, 2024**.



We expect this to take the format of a short report, which should be written in English and is approximately **4,000 – 7.000** words in length. *Please note that all original data should be retained to support future paper writing.*

For comparison purposes, the report should take the format detailed below and should include evidence in the form of quotes, tables and data from the direct observations. Please reference this data to allow us to decipher where it came from (e.g., 'front-line staff interview').

Please also include the document analysis tables as an annex to the report.

The reports should encompass the following sections:

1. **Case study description**
2. **How the objective and legitimacy of public libraries are understood:**
3. **How co-creation and co-innovation is both understood and outlined (e.g. methods)**
4. **The role of and competences needed by front-end employees/public service staff in co-creation/co-innovation**
5. **The role of users/citizens in co-creation/co-innovation**
6. **The role of other stakeholders (private actors, communities) in co-creation/co-innovation**
7. **The role of public libraries as innovation intermediary/network enabler**
8. **How public value is understood in the context of co-innovation and co-creation at public libraries**
9. **Success criteria for citizen engagement and co-creation (e.g. output, outcome, impact)**
10. **Conclusion**



Appendix B: Interview consent form template

1. I agree to take part in the research study named above.
2. I have read and understood the cover letter for this study.
3. The nature and possible effects of the study have been explained to me in person.
4. I understand that the study involves my participation in an interview about [library name, city, country].
5. I understand that participation in the research involves no foreseeable risks.
6. Any questions that I have asked have been answered to my satisfaction.
7. I understand that the researcher(s) will maintain confidentiality and that any information I supply to the researcher(s) will be used only for the purposes of the research.
8. I understand that the results of this interview, if included in a publication, will be presented in a way that identifies only my organization and respondents' affiliation, but not any name.
9. I understand that my participation is voluntary and that I may withdraw at any time without any effect.
10. If I so wish, I may request that any data I have supplied be erased from the research until October 10, 2024.

Participant's name: _____

Participant's signature: _____

Date: _____

All data will be treated and stored securely following GDPR principles, and the research will be conducted so that any harmful consequences for you and your organization will be avoided. The results will be published so that your organization will be named, but informants will be anonymized.