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**LibrarIN [101061516]: Value Co-creation and Social Innovation
for a new Generation of European Libraries**



D4.2 Questionnaire Design & Cognitive testing

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Editor(s)	Anthony Arundel (UM) and Nordine Es-Sadki (UM)
Contributor(s)	Benoit Desmarchelier (ULILLE), Carsten Schmidt (UKON), Doris Schartinger (AIT), Ernesto Solano (UAH), Stefan Thorbjørnson (RUC), Anna Triantafillou (ATC), Barbara van der Vaart (LIBER)
Reviewer(s)	Benoit Desmarchelier (ULILLE)
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Disclaimer

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Executive Summary

This is a technical report that does not present research results. Instead, this report describes the methodology for the development of a questionnaire survey on the innovation and co-creation activities of academic and public libraries in nine EU countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, the Netherlands, and Spain. The questionnaires are designed to collect 1) descriptive results of value for producing metrics on library innovation and co-creation activities and 2) data for use in econometric analyses of the antecedents of co-creation activities and the role of co-creation in innovation outcomes. In addition to the questionnaire, this report provides information on the construction of a sample of public sector managers for survey implementation.

Research for the conceptual framework and for WP4 identified large differences in innovation activities and decision-making processes between university, main public libraries, and branch libraries. As a result, the same questionnaire could not be used for all libraries. Three questionnaires were developed for 1) university libraries, 2) main public (usually municipal) libraries, and 3) public branch libraries.

Input into the design of the questions came from the conceptual framework report (LibrarIN Deliverable 2.1) the D4.1 report that identified and reviewed other surveys of innovation in libraries, and an evaluation of research to date that used questionnaires to measure innovation in the public sector. 57% of the questions used in the three LibrarIN questionnaires are based on questions from previous survey questionnaires (adapted for libraries as necessary) while 43% of the questions are entirely new.

The conceptual framework D2.1 summarized four main research questions for the LibrarIN project. The three questionnaires collect data for addressing many of the research questions, but not all. Necessary restrictions on questionnaire length and the fact that questionnaires are not suited to exploring complex concepts means that not all research questions can be addressed. The questions that are covered include the types of innovations in libraries, the loci of innovation, outcomes, drivers, facilitators and barriers to innovation; the process of co-creation and user involvement in libraries, and the effect of user involvement and other factors on innovation outcomes. To maximize data quality, many of the questions in the university and main public library questionnaire focus on a respondent-selected single (focus) innovation. The same method has been used in other public sector innovation surveys and follows Oslo Manual (Eurostat/OECD, 2018) recommendations.

To improve response rates and data quality, the questionnaire for main public libraries (92 question items) is shorter than the questionnaire for universities (109 question items). The branch library questionnaire is the shortest, with 62 question items. Since the questionnaires differ, not all questions are comparable across questionnaires. However, comparable questions are used for key questions in the university and main public library questionnaires. Comparability is lower for main public libraries and branch libraries, as the latter does not ask questions about a single focal innovation.



The questionnaires were developed in an iterative process whereby consecutive drafts developed by UM were sent to all other LibrarIN partners for comments and suggestions for improvement. The drafts were revised and resent to all partners for additional comments. Two major revisions were made to the university questionnaire, three for the questionnaire for main public libraries, and one for the branch library questionnaire.

Once UM and partners were satisfied with the draft questionnaires, they were translated into Dutch, Danish, French and Spanish. Except for a few questions that had been extensively cognitively tested in previous surveys (particularly for the 2019 Co-Val study), the questions were cognitively tested in a total of 36 face-to-face interviews in Belgium (1 interview), Denmark (10 interviews), France (6 interviews), the Netherlands (9 interviews) and Spain (10 interviews). Seventeen interviews were conducted with managers from research libraries (universities and a national library), 17 with main public libraries, and 2 with branch libraries. The results of cognitive testing led to minor or major changes to almost all tested questions. The exceptions are three tested questions for main public libraries and two tested questions for branch public libraries. The final revised questionnaire after cognitive testing were translated into the seven project languages for use in the survey.

The English version of each of these three questionnaires is provide in Annex B. A questionnaire was also developed for national libraries, but it will not be used due to the very small number of national libraries that could be surveyed. As a result, the national library questionnaire, which is very similar to the university questionnaire, is not provided in this report. For use in the survey, the three questionnaires were translated from English to the seven national languages of the nine EU countries listed above. These translated questionnaires will be made available online.

In total, the goal is to sample 2000 library managers and to obtain a 40% response rate. The survey has been implemented in several stages, with the first section sent questionnaires in May 2024 and the most recent mailout in early October 2024. The split between university and public libraries is approximately 500 university libraries and 1500 public libraries. The survey uses a combined online/postal survey method which is known to increase response rates (Arundel, 2023a). The university sample is a census, with all public universities in the nine countries eligible for inclusion in the sample. The sample of main public libraries is also a census of the largest main public libraries in each country. As of 30 October 2024, 1,970 questionnaires have been sent to identified respondents and 376 completed questionnaires have been returned, for a 19.1% response rate. Identified respondents are not available for France.



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List of Terms and Abbreviations

Abbreviation	Definition
RQ	Research question
NGO	Non government organization
WP	Work package



Introduction

1.1 Purpose and Scope

This report provides an overview of three steps in the development of a questionnaire survey on the innovation and co-creation activities of academic and public libraries in nine EU countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, the Netherlands, and Spain. The three steps consist of designing draft questions for the survey questionnaires, cognitive testing of draft questions followed by revisions, and identifying survey respondents.

The LibrarIN questionnaires are designed to collect 1) descriptive results of value for producing metrics on library innovation and co-creation activities and 2) data for use in econometric analyses of the antecedents of co-creation activities and the role of co-creation in innovation outcomes.

The description of WP₄ in the project grant referred to 'libraries' and 'library managers' in general and proposed surveying 2,000 libraries in countries covered by LibrarIN partners. However, initial discussions on the conceptual framework and the preliminary results from the literature reviews conducted for WP₂ on the conceptual framework showed that this was not an appropriate approach to measuring innovation because of substantial differences between academic and public (primarily municipal) libraries (Rubalcaba et al, p8).

Initial feedback from discussions with librarians in Denmark and the Netherlands identified additional problems for a survey of public libraries, due to differences in responsibilities for innovation between main or central libraries and branch libraries. As a result, a small preliminary research project for WP₄ was created to explore this problem. Project partners conducted interviews with librarians to determine how decisions on innovation were made, or shared, between the main or central library and branch libraries. Interviews with 13 librarians were conducted in Austria (1), Finland (2), Germany (1), Spain (6) and the Netherlands (3). The results, summarized in Annex A, pointed to two different models for decision sharing. The first model was the centralization of decisions, with almost all decisions on innovation made by the main library, particularly for technological innovations such as a new IT platform for library catalogues. The second was a networked model, where a network of branches, such as within a city district, could make some decisions on innovation. These results pointed to the need for a separate questionnaire for branch libraries that would ask about the decision-making power of branch libraries and exclude questions on major technological innovations that were under the control of the main library.

The result was a decision to develop four questionnaires as shown in Figure 1. The first questionnaire to be developed was for universities, with the university questionnaires adapted to the requirements

of other types of libraries. The arrows in Figure 1 reflect the amount of overlap between questions. The overlap is greatest between the university and national library questionnaires. Of note, due to their very small number, we decided not to implement a survey of national libraries.

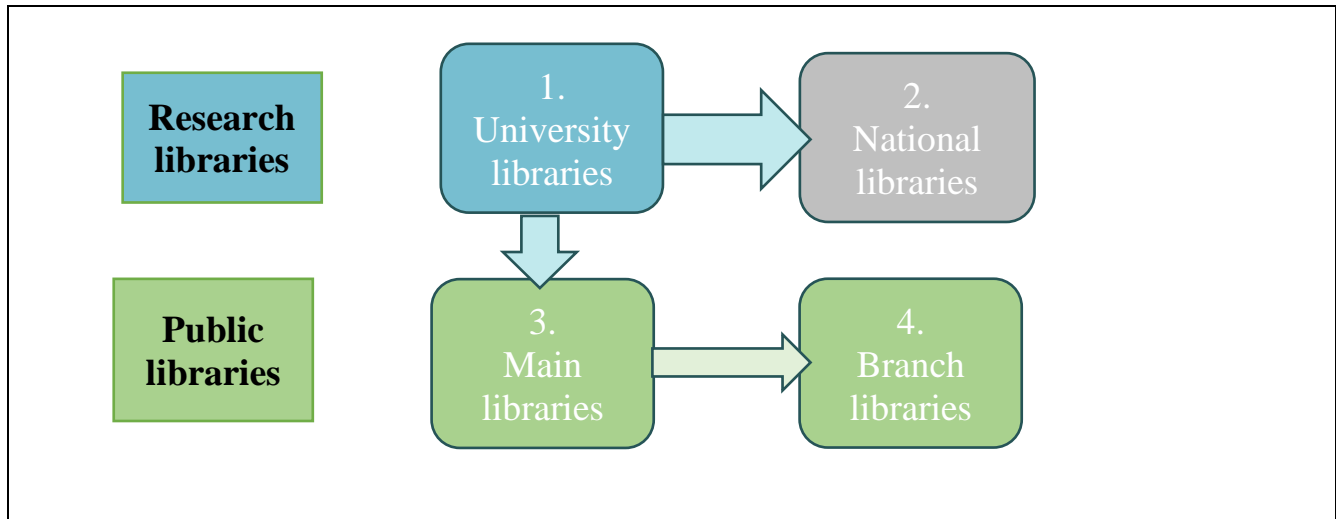


Figure 1: Questionnaires developed for WP4.2

1.2 Approach for WP4 and Relation to other WPs and Deliverables

The design of survey questions drew on the conceptual framework in WP2, a WP1 review of existing survey questionnaires of innovation activities in libraries, and previous non-library surveys of innovation in public sector organizations.

1.2.1 Project research questions

The questionnaire addresses several of the project research questions that are summarized in the conceptual framework (deliverable 2.1) and provided below in Table 1. Due to length limitations for a questionnaire, not all proposed research questions can be covered. In addition, some of the research questions are not suitable for a survey because of question complexity. An example is RQ3 on value expectations and RQ4 on conceptual relationships. These questions are more suitable for case studies. However, relevant answers to part of RQ4 can be provided indirectly through multivariate regression analysis. The second column of Table 1 identifies research questions that can be covered in the survey.



Table 1: LibrarIN project research questions (RQs) and questions covered by one or more of the WP4 questionnaires

Project RQs	Questions covered and not covered by the survey
<p>RQ1: Identification of innovation and co-creation, the loci where they happen, and the ecosystems How to identify innovation and co-creation in libraries? Which innovation types are produced in libraries? Which types of services are produced? Which types of libraries are active in innovation and co-creation? Where do innovation and co-creation take place? What are the objectives of innovation in libraries?</p>	<p>Covered:</p> <ol style="list-style-type: none"> 1. Types of innovations in libraries, including services 2. Types of libraries active in innovation and co-creation 3. Loci of innovation (subset, through exploring linkages between branch and main public libraries) <p>Not covered:</p> <ol style="list-style-type: none"> 1. Objectives of innovation (objectives are similar to outcomes and therefore questions on objectives and outcomes can't be included in the same questionnaire).
<p>RQ2: Innovation drivers, barriers, and impacts How to define the impact and value of library innovations? What are the drivers, facilitators, determinants, and barriers to innovations in libraries?</p>	<p>Covered:</p> <ol style="list-style-type: none"> 1. Outcomes (impacts) of library innovation 2. Drivers, facilitators, determinants, and barriers to innovations <p>Not covered: none</p>
<p>RQ3: Value Co-creation drivers, barriers, & impacts What is the process of value co-creation (and value co-destruction) in libraries in collaboration with multiple stakeholders (e.g. users, citizens, public service organisations, policymakers); what are value expectations, and are they congruent or competing?</p>	<p>Covered:</p> <ol style="list-style-type: none"> 1. Process of value co-creation in libraries in collaboration with multiple stakeholders and through co-creation activities <p>Not covered:</p> <ol style="list-style-type: none"> 2. Value expectations, and are they congruent or competing?
<p>RQ4. New ways of participation & co-creation process How to analyse the conceptual relationship between the co-creation of innovation and traditional forms of participation to assess co-creation in terms of inclusiveness, meaningfulness, and legitimacy.</p>	<p>Covered:</p> <ol style="list-style-type: none"> 1. Indirectly, through an analysis of effect of different types and levels of participation on outcomes. <p>Not covered:</p> <ol style="list-style-type: none"> 1. Conceptual relationship, traditional forms of participation, legitimacy.



1.2.2 Relations to other WPs and deliverables

Where possible, the descriptive and econometric analyses of the survey questions will supplement the case-study oriented research in LibrarIN work packages 3.1 (digital transformation and ICT), 3.2 (social entrepreneurship, public-private networks and social innovation, and 3.3 (Living labs for co-creation and co-innovation). However, due to the limitations of questionnaires, the survey provides only limited results of direct relevance to the detailed case studies. Instead, the surveys mostly provide data on the background factors linked to library innovation and the frequency with which specific innovation activities occur.

1.3 Structure of this Deliverable

The remainder of this document covers the three steps for preparing a questionnaire survey: designing the questionnaire (section 2), question testing with an emphasis on cognitive testing (section 3), and identifying survey respondents, plus a short overview of the survey implementation protocol (section 4). A few conclusions are provided in section 5. The Annexes provide the English versions of each of three questionnaires for university, main public, and branch public libraries. All questionnaires are translated into the national languages of the countries where the survey is implemented (German, Dutch, Danish, Finnish, French, Greek and Spanish). The translated questionnaires will be available online.



2 Designing survey questions

The LibrarIN questionnaires are designed to measure innovation in libraries and activities such as collaboration and co-creation to develop an innovation.

There is extensive research and experience with measuring innovation and innovation activities, starting with surveys of business innovation. Experimental surveys of business innovation in the 1970s and 1980s led to the first Oslo Manual guidelines for innovation measurement and to national innovation surveys in Europe and in many other countries (OECD/Eurostat, 2018). Interest in measuring innovation in the public sector began in the 1990s and 2000s and has led to guidelines on how to measure public sector innovation (Arundel et al, 2019; Lykebbø et al, 2021), although none of the existing guidelines have the official status of the Oslo Manual. Nor is there consensus among researchers interested in public sector innovation on how to define innovation in the public sector, although there is general agreement that an innovation must be implemented and be novel, though there is no agreement on the degree of necessary novelty. Similarly, the two literature searches for WP2 on innovation in academic and public libraries found a lack of consensus on the definition of innovation and the types of innovations that are common in libraries (Rubalcaba et al, p 15-16; 17-19).

Except for a small number of private libraries, both research and public libraries in Europe are part of the public sector and consequently previous research on using questionnaire surveys to measure public sector innovation activities is of high relevance to LibrarIN. The first step in designing the questionnaire was to evaluate other public sector surveys for relevant questions (on innovation, collaboration and co-creation) and to conduct a literature search (see Deliverable 4.1) for surveys of innovation in libraries. The second step was to compare identified questions to the LibrarIN research questions (see Table 1) to identify the usefulness of existing questions and research questions for which new survey questions would need to be developed. The third step was to draft questions.

2.1 Previous public sector surveys and literature search

The types of questions to ask in the surveys were influenced by the conceptual framework and by previous surveys on innovation in libraries and in non-library public sector organizations.

2.1.1 Conceptual framework

The conceptual framework, summarized in WP2.1, proposes a multi-agent or 'eco-system' model for the study of innovation in libraries (Rubalcaba et al, 2024, p 40). The eco-system approach predicts that the characteristics of innovations are developed through interactions with multiple actors that can vary depending on the type of innovation and the expertise that is required to develop it (Trischler et al, 2019; Osborne et al, 2022). For libraries, relevant actors include local policymakers, library users, library administrators and managers, and stakeholders such as businesses, NGOs or community



groups. The implication of an eco-system model is that a questionnaire on library innovation needs to include questions on internal (within government) and external actors that may contribute to the development of innovations, questions on how specific actors contribute, and questions on the usefulness of inputs from various actors.

The conceptual framework also identifies different types of library innovations, core public services where innovation can occur, and issues with terminology. The WP2.1 document summarizes different studies that provide multiple examples of library innovation types. For academic libraries, these are grouped into four types: technical, service, miscellaneous including administrative, and social innovations.

The research on developing questionnaires to measure innovation in libraries requires an understandable and moderately comparable list of innovation types for both research and public libraries. The WP2.1 evaluation provides two lists of core public services that were helpful for identifying types of innovation. One list includes 5 core services: reading and education, community support (advisory services, support for social inclusion), health and well-being, creativity (tutoring, makerspaces, etc.), and business and finance assistance. The second list consists of three public library 'spaces': social space (cultural events, etc.), physical space (outdoor programming, new facilities, etc.) and digital space (apps, games, new delivery modes (e-books)).

The WP2.1 report also noted that the word 'innovation' was seldom used in the literature for public libraries, but was more widely used for research libraries. However, the survey questionnaires adopt a cautious approach and never use the term 'innovation', which is replaced with "new or improved services or processes".

2.1.2 Surveys of innovation in libraries

The WP4.1 deliverable (Arundel and Es-Sadki, 2023) primarily focused on sources of possible metrics for library innovation and co-creation, but it also looked at existing research for examples of measuring innovation in libraries (Tables 4 and 5 in the WP4.1 report) and user involvement in library innovations (Table 6 in the WP 4.1 report), which is of greatest interest here. Most of the seven relevant surveys on user involvement are small in scale, with responses from between 6 and 107 librarians. In addition, the Danish Innobarometer surveys¹ for 2016 and 2019 provided publicly available data, analysed as part of WP4.1, on both innovation activities and user involvement for an unknown number of Danish libraries.

¹ Data from innovationbarometer.org/innovation-test/



MacDonald's (2017) survey of 16 library managers from both academic and public libraries asked questions on challenges to user involvement, of which useful questions were on resource limitations and a lack of staff training or expertise, plus aspects of the library culture. Islam et al (2015) asked about the methods that libraries used to learn about user needs, finding that social media and other online sources were the most frequent methods, while focus groups were rarely used. The most common interactive method of learning about user needs were informal discussions or collaboration. The survey by Arundel et al (2016) included questions on several methods of involving users, such as focus groups, surveys, prototype testing, and post-implementation research. Cruz et al (2020) found that Brazilian libraries were more likely to learn about user needs from front-line employees than from users themselves. MacDonald (2017) also identified barriers to involving users (resource limitations, library culture, trust, and a lack of expertise) and Cruz et al (2020) identified several outcomes (user satisfaction, library reputation, employee satisfaction, process improvement, cost reduction, and increased level of services).

The Danish survey included a question to explore the novelty of the library's most recent innovation, based on who developed the innovation: the library itself, "inspired by solutions developed by others", and through imitating "solutions" developed by others. The results show that 59% of respondents reported that their most recent innovation (59%) was 'inspired by solutions developed by others' and 25% reported that "their workplace was the first to develop the innovation". Other relevant Danish questions covered the 'initiators' of the innovation, which include citizens and NGOs, the use of different collaboration partners, and factors that promoted or hindered innovation. The most cited hindering factor was "limited financial resources". Other hindering factors included employees, citizens, focus on reliability, organizational changes, political leadership, new technologies, and regulations.

To summarize, the WP 4.1 report identified studies with input to possible survey questions on the following topics: leadership and organizational culture, user involvement, participatory and non-participatory methods of involving users, the benefits of user involvement, innovation outcomes, innovation novelty, obstacles to innovation, and obstacles to user involvement.

2.1.3 Surveys on public sector innovation

The most useful source of possible questions on innovation in libraries and co-creation activities is other surveys on innovation in public sector organizations that were not limited to libraries. The relevant literature includes reviews on how to measure public sector innovation (Arundel et al, 2019; Lykkebo et al, 2022, Arundel and Schoonraad, 2023) and previous public sector innovations surveys that included questions on user participation in innovation activities. These include an Australian



survey of innovation in universities (Arundel et al, 2016) and the 2019 Co-Val survey of co-creation in public sector organizations in six European countries (Nordli et al, 2024).

The 2019 Co-Val survey was particularly useful because it included relevant questions that could be adapted to the library context: a list based method of identifying types of innovations, the role of senior management in establishing a pro innovation culture, a question asking respondents to describe a single focal innovation, innovation drivers, external sources of assistance, methods for developing the innovation and for involving users, innovation evaluation, innovation outcomes, and innovation obstacles. A survey question on novelty was adapted from in the EU's Community Innovation Survey and the Danish Innobarometer survey of public organizations.

2.2 Drafting LibrarIN survey questions

Over half (57%) of the LibrarIN survey questions are based on previous public sector innovation surveys questions that were adapted for a survey of libraries, or from surveys of innovations in libraries. The other 43% of questions are new. The adapted questions vary from minor to substantial changes compared to the original. For instance, the format of a standard question from the Co-Val questionnaire on the importance of a list of drivers for innovation remained the same, but almost all listed drivers in the question for main libraries were new and unique to the library environment.

2.2.1 Guidelines for LibrarIN survey questions

Several guidelines for good question design were followed:

1. Keep the questionnaire short. Respondents should be able to answer it in less than 20 minutes. This reduces respondent fatigue (which can reduce the quality of responses) and the non-response rate.
2. Questions should be explained simply and be understandable without the need for the respondent to have a tertiary education.
3. Major concepts need to be defined in the questions.
4. Terms that are not understood by all respondents need to be avoided to prevent inaccurate answers, particularly false positives. This includes terms such as 'library users'.
5. To reduce memory telescoping and other undesirable effects, most questions refer to activities in the 'last three years' only.

These requirements place limits on the length and complexity of a questionnaire that necessitate decisions on the number of questions that are asked and how they are asked (Arundel, 2023a). Restrictions on the number of questions and question complexity means that is not possible to answer all LibrarIN research questions, as noted in Table 1.



In respect to how questions are asked, innovation surveys can ask about innovation activities in general (the subject approach) or about activities to develop a specific, focal innovation (the object approach). Both methods have advantages and disadvantages (Arundel, 2023b). The main advantage of the object approach is that it can collect information for a single innovation, which reduces respondent burden and improves accuracy compared to the subject approach, which requires respondents to provide an 'averaged' response across possibly multiple innovations. Following the 2019 Co-Val survey, the LibrarIN survey uses a combination of subject and object questions, except for the public library branch questionnaire which only uses the subject approach. As the innovations developed by branch libraries are assumed to be less complex than innovations developed by the main library and therefore less likely to benefit from user input, the object approach (limited to a single innovation) could fail to identify the role of users in innovations developed by branch libraries.

There are several possible formats for questions: check lists, yes/no, ordinal, matrix, numerical (requesting interval level data), and open (requesting text data). To avoid common method bias, questions need to use several different formats, while reducing response burden means reducing the level of difficulty, for instance by using an ordinal instead of a numerical format. Very few open questions should be asked. The LibrarIN questionnaires follow good practice by using a variety of questionnaire formats, replacing numerical questions with ordinal questions, and using multiple question formats.

Questionnaire length is always problematic and reduces survey response rates (Arundel, 2023a, p 26) and data quality for questions that appear later in the questionnaire as respondent fatigue sets in (Arundel, 2023a, p 15-17), though the negative effect of length on response rates partly depends on the knowledge and willingness of selected individuals to reply to a questionnaire. Options to increase the response rate of the LibrarIN survey and maintain data quality include keeping the questionnaire as short as possible, making the questionnaire interesting for respondents, and using cognitive testing to ensure that respondents can readily understand the questions. Based on the literature review and preliminary research on public libraries, we assumed that more difficult, technical questions could be asked of research library managers but should be avoided in surveys of public libraries. Conversely, some questions on the link between main and branch libraries are essential for public libraries, creating questions that are not asked of the university libraries.

The LibrarIN questionnaires are divided into three sections. Section A covers general conditions for innovation and are asked of libraries that do and do not innovate. Section B includes questions on innovation activities and user involvement in developing the innovation and is only asked of libraries that report one or more innovations in Section A. Section C includes very short questions on the respondent such as the number of years employed in the library sector.



Almost all questions consist of a main question (for instance “how important are the following activities to your library?” and a set of one or more sub-questions (for instance ‘providing information or access to publications’, ‘holding community or cultural activities’, etc.). Table 2 provides an overview of main and sub-questions for each of the four LibrarIN questionnaires.

The total number of sub-questions is highest for university libraries (103) and intentionally lowest for branch libraries to reduce respondent burden (62) and to take into consideration the results from the study of responsibilities across main and branch public libraries. These results indicated that decision making over many technical and process innovations are taken by the main library. In comparison to university libraries, the slightly lower number of sub-questions for national and main public libraries was due to removing a few questions (such as external sources of assistance) to reduce the questionnaire length and thereby increase response rates. This was partly based on the observation of lower than desired response rates from a preliminary survey of universities.

Table 2: Length of LibrarIN questionnaires: Main questions and sub-question counts

Main questions	Research libraries		Public libraries	
	University	National	Main	Branch
Section A: general questions				
Library description	-	-	1	-
Importance of functions	3	5	4	-
Management statements	5	5	2	2
Employment of skilled staff	5	5	4	-
Other sources of skills			1	
Innovation types	8	7	7	8
Innovation drivers	6	5	6	6
Innovation obstacles	7	7	7	7
Sections B: questions on a focal innovation*				
Request for a written description	1	1	1	-
Type of focal innovation / purpose	6	6	4	-
Where implemented	-	4	4	3
Technology use	5	1	1	-
How developed	4	4	4	3
Funding sources	3	3	3	3
Development methods	3	-	-	-
Source of the original idea	6	-	-	-
External sources of assistance	7	-	-	-
Methods to involve library staff & users	7	7	5	6



Main questions	Research libraries		Public libraries	
	University	National	Main	Branch
Usefulness of inputs on challenges	5	7	-	-
Usefulness of Inputs on solutions	5	7	-	-
Usefulness of inputs in general			9	7
Inputs to challenges or solutions	-	-	6	-
Involvement in focus groups / workshops	5	-	3	
Obstacles to user involvement	5	5	5	5
Evaluation	1	1	1	1
Outcomes	9	8	11	9
Section C: background information				
Number of employees	1	1	1	1
Time worked in library sector	1	1	1	1
Job title	1		1	
Gender identity			1	1
Regional network				1
Total	109	91	92	62

*: Results for all innovations for branch libraries.

2.2.2 Questionnaire comparability

As noted above, the questionnaires for research and public libraries differ due to substantial differences between these two types of libraries (Rubalcaba et al, 2023) and the questionnaire for main public libraries differs from that for branch libraries due to the research on decision making summarized in Annex A. However, several questions are either identical or very similar between the university questionnaire and the questionnaire for main public libraries, and between the two public library questionnaires, permitting direct comparisons. Comparable questions between the university and mail library questionnaires are summarized in Table 3.

3. Other questions, particularly on user involvement in developing the innovation and funding the innovation, are not directly comparable, but comparable variables can be constructed from several questions to identify the use of methods for involving users (focus groups etc.), the usefulness of knowledge obtained from library managers, staff, and library users; and input from NGOs, businesses or consultants, and other libraries.



Table 3: Comparable questions in the university and main public library questionnaires

Question	University library question	Main public library question
Importance of activities	A1	A2
Community or cultural activities	1b	2b
Makerspaces etc.	1c	2c
Management and employee support for innovation	A2	A3
Support for developing new or improved services or processes	2b	3a
Highly motivated staff	2c	3b
Staff skills	A3	A4
Change or innovation management	3a	4a
Design thinking and other user methods	3b	4b
Digital literacy	3c	4c
Artificial intelligence	3e	4d
Types of innovations	A4	A5
Communication methods	4d	5d
Admin /back-office processes	4e	5f
Changes to building design	4g	5e
Innovation drivers	A5	A6
New technologies	5b	6b
Needs of library users	5e	6d
Innovation obstacles	A6	A7
Unrealistic time pressures	6a	7a
Library staff lack expertise (with innovation)	6b	7b
Insufficient financial resources	6d	7d
Library staff resistant to change	6e	7e
Description of the focal innovation	B1	B1
Technical content of focal innovation	B3	B4
Types of technologies involved	3a – 3e	combined
How the focal innovation was developed	B5	B7
Post implementation evaluation of the focal innovation	B13	B5
Obstacles to involving users	B12	B11
Reluctance of library staff	12a	11a
Lack of experience	12b	11b
Difficulties in finding volunteer library users	12c	11c
Insufficient time or funding	12d	11d



Question	University library question	Main public library question
Outcomes	B15	B13
Design of library space	15b	13a
Ease of use of processes	15c	13b
User experiences	15d	13d
Library employee satisfaction	15f	13g
Outreach to new library users	15g	13h
Community building among users	15h	13j

Table 4 lists comparable questions in the main public library and branch library questionnaires. Many questions are not directly comparable because section B questions in the main library questionnaire are limited to a single focal innovation whereas these questions refer to all innovations for branch libraries, while questions on user involvement refer specifically to branch library users. Nevertheless, it may be possible to construct comparability by identifying the 'most important' factors for B section questions that are identical or very similar in the two questionnaires (B5 on funding, B6 on evaluation, B7 on how the innovation was developed, B11 on obstacles to user involvement, and B13 on outcomes). For instance, the most important obstacles can be identified for user involvement reported in question B11 for the main library focal innovation and in question B6 for all innovations for the branch library.

Table 4: Comparable questions in the main public library and branch library questionnaires

Question	Main public library question	Branch library question
Management and employee support for innovation	A2	A1
Support for developing new or improved services or processes	2a	1a
Highly motivated staff	2b	1b
Types of innovations	A5	A2
All main library questions replicated in branch library questions	5a – 5f	
Innovation obstacles	A7	A3
Lack of expertise	7b	3b
Insufficient staff	7c	3c
Insufficient finances	7d	3d
Library staff uninterested	7e	3e
Innovation drivers	A6	B1
Suggestions from library users	6d	1c
Societal changes or expectations	6e	1e



3 Questionnaire testing

Questionnaires need to be tested to identify errors, questions that are unlikely to elicit required responses, questions that miss important aspects of the topic, and questions that some respondents may not understand. A good questionnaire only includes questions that all respondents understand in the same way (as intended) and for which they can provide reasonably accurate responses.

Good practice requires internal evaluation of several drafts by the group developing the questionnaire followed by cognitive testing with individuals drawn from the pool of potential respondents to the questionnaire. Internal evaluation can identify errors and important questions that are missed, but cognitive testing is required to ensure that respondents can understand each question as intended and are capable of answering them (Willis, 2018).

A draft version of each of the four questionnaires was first developed by the UM partner, then sent to a minimum of one individual from all other LibrarIN partners for comments. Two rounds of comments followed by revisions were undertaken for the university questionnaire in February and March 2024 and three rounds of comments and revisions were undertaken for the main public library questionnaire between June and September 2024. The national library and branch library questionnaires were derivatives of the university and main public library questionnaire and therefore only had one round of internal comments and revisions.

3.1 Cognitive testing

Cognitive testing is the gold standard for question and questionnaire design, used by leading National Statistical Organizations world-wide, including in Finland, Norway, France, the Netherlands, and Belgium. It is a time-consuming and consequently expensive process that requires face-to-face interviews (preferably in person but online video is an acceptable alternative) with respondents drawn from the target population for a survey. Interviewees for cognitive testing do not need to be selected randomly, but they need to cover variation in the sampled population.

The goal of cognitive testing is to ensure that all questions can be understood, as intended, by all respondents and that all respondents can provide reasonably accurate answers (Collins, 2003; DeMaio et al, 1993). This goal cannot be met with 100% certainty since there will always be survey respondents that fail to understand a question. However, the method substantially reduces the probability of high rates of misunderstanding or that a seriously flawed question will be included in the questionnaire. Flawed or failed questions include those that are understood differently by various groups of respondents or which elicit incomparable or inaccurate answers. The results from failed questions either need to be excluded from all analyses or respondents need to be re-contacted to collect accurate data. The former can reduce the benefits of a survey while the latter can be very costly.



Cognitive testing asks interviewees to read questions and answer them. This is followed by probing to clarify the thought processes of the interviewee when answering the question and requests for respondents to describe a term in their own words. For example, if they report a new or improved service they are asked to describe the service innovation they had in mind. Willis (2018) and Arundel (2023) provide practical details for how to conduct cognitive testing.

Cognitive testing for LibrarIN followed the methodology presented in Arundel (2023a, chapter 4), which includes guidelines for selecting interviewees, training interviewers, the interview design (including preparation and probing method), and compiling and assessing results. All cognitive testing was conducted in the national languages of the LibrarIN partners participating in cognitive testing (the Netherlands, Denmark, Spain and France) and used translated versions of the draft questionnaire. The number of cognitive tests by country and library type is given in Table 5.

Table 5: Cognitive testing of LibrarIN survey questionnaires

Type	UNU-MERIT (Netherlands)	UAH (Spain)	Roskilde University (Denmark)	University of Lille (France)	Total
Research Libraries					
University libraries	*5	5	3	3	16
National libraries	1				1
			<i>Total, research libraries</i>		17
Public (municipal) libraries					
Main / central libraries	4	3	7	3	17
Branch libraries		2			2
	10	10	10	6	
			<i>Total, public libraries</i>		19
			Total, all library types		36

*Four in the Netherlands, one in the Dutch speaking region of Belgium.

The results from the cognitive testing for the one national library was applied to university libraries, due to the similarity between the questionnaires.

Not all questions could be cognitively tested because this would require the interviews to exceed one hour, the maximum length of time that volunteers will usually agree to. In addition, long interviews can result in poor results because of fatigue on the part of both the interviewers and interviewees. The questions excluded from cognitive testing include basic questions on the respondent that had been tested previously in multiple questionnaire surveys (for instance a question on the number of employees in the respondent’s library) and questions that had undergone extensive cognitive testing



in previous surveys on public sector innovation, such as a question on management and employee support for innovation and a question for the university survey on external sources of assistance.

Each of the four partners responsible for cognitive testing wrote up a summary of their main findings and their results for each tested question. All results were evaluated by the Maastricht University (UM) partner and changes made to each questionnaire as necessary.

3.2 Testing results

Cognitive testing can lead to multiple types of changes. The following list gives examples from the questionnaire for main public libraries:

1. An entire question can be dropped or completely revised because of problems with relevance or comprehension. An example is question B₂, where the original question on the characteristics of a focal innovation was replaced with a question on who was expected to benefit from the new or improved service.
2. The wording of main questions can be substantially revised, as with question (A₂) on the importance of different library functions.
3. Sub-questions can be deleted due to problems with relevance or comprehension. An example is a sub-question for A₄ on staff competences where a sub-question on IT skills was deleted due to a lack of differentiation with a question on digital literacy. Another example is two sub-questions in question B₁₃ on outcomes, which were poorly understood by respondents (on the 'accessibility of knowledge' and the use of the library as an 'experimental space').
4. Sub-questions can be added, such as a sub-question on 'library user skills' which was added to question B₁₃ on outcomes.

Out of the 20 questions in the questionnaire for main public libraries, only three questions passed cognitive testing without the need for changes: question A₇ on innovation obstacles, question B₁ asking for a description of a focal innovation, and question B₇ on how the innovation was developed. However, these questions had already been revised after cognitive testing of the university questionnaire. All questions in the university questionnaire that were cognitively tested were changed as a result of identified problems. Cognitive testing of the questionnaire for public branch libraries only led to changes to two questions. The low need for additional changes was due to previous cognitive testing for the questionnaire for main libraries.

3.3 Final questionnaires

Annex B provides the final English versions of the questionnaires for university, main public, and public branch libraries. Annex C provides versions in the other languages for each of the eight surveyed



countries (Danish, Dutch, German, Greek, Finnish, French, and Spanish). Please note that the formatting in these questionnaires is not identical to the formatting used in the online and printed versions.



4 Identification of survey respondents and survey protocol

This section describes the sampling of survey respondents and the survey protocol, including the timeline, the number of contacted managers, returned questionnaires response rates, as of Oct. 30, 2024, of both the university and public library surveys.

Both the university library survey and the public (municipal) library survey are sent to library managers in all nine partner countries, i.e. Austria, Belgium, Denmark, France, Finland, Germany, Greece, Spain and the Netherlands. UM and partners decided to first survey university libraries starting in the spring of 2024 and survey municipal public libraries in the fall of 2024.

4.1 University library survey

LibrarIN partners were asked in March, 2024 to identify all universities in their country and obtain a contact for the main library at each of these universities. The objective was to sample all university libraries in the partner countries. The information that partners needed to collect included:

1. Contact details:
 - a. Name of the contact
 - b. Contact's job title
 - c. Contact's mailing address
 - d. Contact's email address (not a general library email address!)
 - e. Contact's phone number (if possible, but not urgent)

2. University library details. The data are necessary for both research analyses and non-response analyses.
 - a. Total number of staff (academics and administration) at the university served by the library.
 - b. Total number of students (all degree levels).
 - c. Type of organization: national library, library affiliated with a public university, private university, other type of tertiary education institution.
 - d. Any specialization, such as a medical library or business library.
 - e. Phrases from the university mission statement of relevance to innovation.

Since there are many different types of higher education institutes, UM and partners agreed to include, next to public universities, only other tertiary education institutes that conduct research, as defined by whether they have a PhD program. Private universities and non-university tertiary without a PhD program are excluded.



LIBER, the Association of European Research Libraries, provided contact information for member university libraries. All partners except France were able to identify contact persons for universities and other tertiary research institutes that were not LIBER members but met the inclusion requirements. France was unable to provide contacts details as they were not publicly available. Instead, university library managers in France were asked to participate via the association of university librarians in France, which distributed the survey in their network. The University of Konstanz also provided contact details for 140 higher education library managers, mostly 'Hochschule' and 'Fachhochschule', for which a separate online version of the questionnaire was created to distribute the survey.

4.2 Public library survey

LibrarIN partners were asked in June 2024 to sample main public libraries. As there are far more public libraries than there are universities, a sampling strategy was shared with partners that defined how many libraries needed to be sampled within each of the partner countries. National cities are listed by descending size and the main libraries are selected until the sample size is reached. For example, for countries with a sample size of 75 main branches, the 75 largest municipalities are selected. The minimum sample size for main libraries per small country (Austria, Belgium, Denmark, Greece, and Finland) is 75 to allow sufficient results at the national level to produce country level indicators and to compare results across countries. Where possible, the minimum population size of a municipality for main branches is 25,000 inhabitants. For the four larger countries (France, Germany, the Netherlands and Spain) the sample size is based on the population adjusted by the number of person-months assigned to WP4, after subtracting time for cognitive testing. The result is that the sample is larger in Germany, where no cognitive testing was undertaken, than in Spain and France. The Belgian sample was constructed by UM. The size of the sample for each country is given in Table 6. Column 2 gives the total sample, column 3 gives the number of main libraries to sample, and column 4 gives the number of library branches to sample. The sampling ratio between branches and main libraries is set at 75% for main libraries and 25% for branches.

Table 6: Sample size of public library survey by country

Country	Total sample size	Number of main libraries to sample	Number of branches to sample
Germany	350	263	88
France	250	188	63
Spain	250	188	63
Austria	100	75	25
Belgium	100	75	25



Country	Total sample size	Number of main libraries to sample	Number of branches to sample
Denmark	100	75	25
Finland	100	75	25
Greece	100	75	25
Netherlands	150	113	38
Total	1500	1127	377

Sampling for branch libraries is limited to municipalities that are large enough to have branches, with the sample excluding small branch libraries.

Next to the contact details to be collected (similar to the details for university library managers listed above), partners were asked to collect additional information for both main libraries and branch libraries for use in the research analysis and non-response analysis: the population and per capita or household average income per municipality (if available). For libraries with branches, the total number of branches in the municipality is collected as this might affect innovation behaviour.

4.3 Survey implementation

The survey of libraries for universities and other tertiary education institutes was sent in 2 batches. Non-LIBER members were surveyed starting in the beginning of May 2024 and LIBER members were surveyed starting in September 2024. The public library survey was also sent in two batches for the central or main library and for branch libraries, with both starting in the beginning of October 2024.

All surveys are estimated to be conducted over a 3 to 4 month period and include an emailed introduction letter inviting the identified potential respondents to complete an online version of the survey followed by two email reminder letters. Qualtrics is used for hosting the survey and for distributing the survey to potential respondents, including both the initial contact emails and email reminders. Non-respondents to the online survey after two email reminders will receive the questionnaire by post to increase the number of responses. Lastly, telephone follow-up calls, may be conducted if the response rate by country and library type is below 40%.

UM is responsible for managing both the online and mailed surveys. In addition to translating the questionnaires, LibrarIN partners translated the contact letters and reminders into their national languages. Telephone follow-up calls will be initiated by UNU-MERIT, but in cases of language barriers,



partners will need to conduct follow-up calls themselves. The objective is that all calls will be conducted in the language of the potential respondent.

The online version is protected with a unique web link that is emailed to each respondent and mentioned in follow-up communications. The key will allow respondents to access their questionnaire at any time, permitting updates or corrections. Online responses are automatically entered into a database. Respondents are instructed that their participation in the survey is voluntary and that they may refrain (opt-out) from the survey at any time, even after they have completed the survey. Data are treated confidentially, and no information will ever be publicly released that could be used to identify the respondent or their library. Survey responses will be processed confidentially and stored securely, in compliance with the privacy rules and data storage protocols of Maastricht University².

Responses from mailed questionnaires are entered, when received, into a specially designed data capture interface that replicates the appearance of the mailed questionnaire in order to reduce data entry errors. Respondents may be contacted by telephone to check any errors or other problems that are identified during data entry.

4.3.1 Number of surveyed libraries

Table 7 provides preliminary counts of the number of universities and public libraries sent the questionnaire and the number of responses by 30 October 2024. The counts are missing data for France for main public libraries and branch public libraries as the size of the sample is unknown. The number of responses and the response rates for public libraries is lower than that for universities because of a much later date for the start of the survey. Please note that Table 7 is not the final response rate, as the survey will be active until the end of January 2025. Table 7 will be updated when the survey is completed.

Table 7: Preliminary survey results³

Type of library	Questionnaires sent	Questionnaires returned	Response rate
Non Liber Universities	164	75	45.7%
Liber Universities	345	66	19.1%
Main public libraries	1140	210	18.4%
Branch public libraries	321	25	7.8%
Total	1970	376	19.1%

² <https://www.maastrichtuniversity.nl/about-um/um-general-privacy-statement>

³ Excludes data for France as we do not know the number of questionnaires received by respondents, but 30 questionnaires have so far been returned for non-Liber universities. This count is not included in the above table.



5 Conclusions

This report provides technical details on the development of the LibrarIN survey questionnaire and survey protocol, including the selection methods for university and public libraries in the nine EU countries where the survey is implemented (Austria, Belgium, Denmark, France, Germany, Greece, Finland, the Netherlands and Spain). Four versions of the questionnaire were developed for different types of libraries (university, national, main public, and branch public), but the national library survey has not been implemented due to the very small number of national libraries in the nine participating countries. Question design drew on the conceptual framework document D2.1 to determine the types of questions to include in the questionnaires. Existing questionnaires for libraries and other public sector organizations were evaluated to identify potentially useful questions that could be adapted to fit LibrarIN research needs. As different types of libraries face different problems and hence requirements for innovation, separate questionnaires were necessary. However, as much as possible similar questions were used to permit comparisons between university and main public libraries and between main public libraries and public branch libraries. All questionnaires underwent cognitive testing, with a total of 36 cognitive interviews conducted in Spain, France, Denmark and the Netherlands. Full copies of the questionnaires, In English, are provided in annex B. The survey is based on a census of university libraries and main public libraries and a sample of branch libraries.



6 References

Arundel, A., Bowen Butchart, D., & Gatenby-Clark, S. (2016, September). The role of an inclusive innovation culture and innovation support strategies in university managerial and service innovations: Survey results for Australia and New Zealand. In Proceedings of the Blue Sky Forum on Science and Innovation Indicators (pp. 1-23).

Arundel, A. (2023a). *How to design, implement, and analyse a survey*. Edward Elgar Publishing.

Arundel, A. (2023b). Hybrid innovation surveys: combining subject and object approaches to innovation measurement. In *Handbook of Innovation Indicators and Measurement* (pp. 323-341). Edward Elgar Publishing.

Arundel, A. & Es-Sadki, N. (2023). D4.1 Mapping of existing studies and metrics, v1.0. LibrarIN publication.

Arundel, A., & Schoonraad, P. (2023). Measuring public sector innovation. In *Handbook of Innovation Indicators and Measurement* (pp. 158-176). Edward Elgar Publishing.

Arundel, A., Bloch, C., & Ferguson, B. (2019). Advancing innovation in the public sector: Aligning innovation measurement with policy goals. *Research policy*, 48(3), 789-798.

Collins, D. (2003). Pretesting survey instruments: an overview of cognitive methods. *Quality of life research*, 12, 229-238.

Cruz, K. F. S., Mendes, G. H. S., Lizarelli, F. L., & Cauchick-Miguel, P. A. (2020). Antecedents and consequences of library service innovation: An investigation into Brazilian academic libraries. *The Journal of Academic Librarianship*, 46(6), 1022-1035.

DeMaio, T., Mathiowetz, N., Rothgeb, J., Beach, M. E., & Durant, S. (1993). Protocol for pretesting demographic surveys at the Census Bureau. *Washington, DC: US Bureau of the Census*.

Islam, A., Agarwal, N. K., & Ikeda, M. (2015). How do academic libraries work with their users to co-create value for service innovation?: A qualitative survey. *Qualitative and quantitative methods in libraries*, 4(3), 637-658.

Lykkebo, O. B., Munch-Andersen, M., Jakobsen, N., Jeppesen, L. K., & Sauer, P. (2021). The Copenhagen Manual, A Guide on How and Why Your Country Can Benefit from Measuring Public Sector Innovation.

MacDonald, C. M. (2017). "It takes a village": on UX librarianship and building UX capacity in libraries. *Journal of Library Administration*, 57(2), 194-214.

Nordli, A., Arundel, A., Marton, K., & Miklos, R. (2024) Does user involvement in developing public sector innovations improve outcomes? A set-theoretic analysis of European data, *Administration & society* 1-36, doi 10.1177/00953997241287780.

OECD/European Union (2018). Oslo Manual: The measurement of scientific, technological and innovation activities. Guidelines for collecting, reporting, and using data on innovation. OECD, Paris.



Osborne, S.P., Powell, M., Cui, T., & Strokosch, K, (2022). Value creation in the public service ecosystem: An integrative framework *Public Administration Review*, 82(4), 634-645.

Rubalcaba L., Windrum, P., Solano, E., Hyytinen, K., Tuominen, T., Vainikainen, S., Gupta, V., Moscoso, F., Madueno N. (2024). D2.1 Conceptual framework and model of participatory management and sustainable growth v1.0, LibrarIN publication.

Trischler, J., Charles, M. (2019) The Application of a Service Ecosystems Lens to Public Policy Analysis and Design: Exploring the Frontiers, *Journal of Public policy and Marketing*, 38:1, 19-35.

Willis, G. (2018). Cognitive interviewing in survey design: State of the science and future directions. *The Palgrave handbook of survey research*, 103-107.



7 Annex A

7.1 Annex A: Summary of results of interviews on decision making in main and branch libraries

Country	Org	Position	Proposals	Decision	Decision varies by innov type?	Branch decision making power?	TYPE
ES	Branch, City 1	Librarian	Anyone	Library director	Yes. Tech innov. requires approval of Central services	Limited, if no economic costs, ie for community projects within existing budget	Central
ES	Branch, City 1	Librarian	Anyone	Library director	Yes. tech innov. requires approval of Central services	Limited, services that are not repeated in other branches.	Central
ES	Main, City 1	Head of lib dept services	Anyone	Library Network directorate if no need for a budget increase, If an increase, Council.	Yes. Some suggested by City Council's Tech Innovation Service, ie. digital library access.	Limited. Branches can make decisions for their branch only, but approval by central services is necessary when a service is shared by other branches.	Central
ES	Branch, City 2	Librarian	Head librarians	Head of Library section, City Council	No	Limited. Central library makes decisions for Library Network. Otherwise need to argue for a specific need for the branch's users.	Central
ES	Branch, City 2	Librarian	-	The library technician together with library staff	No	Limited. Central library makes decisions for Library Network. But some Head librarians can make decisions if a specific	Central



Country	Org	Position	Proposals	Decision	Decision varies by innov type?	Branch decision making power?	TYPE
						need for the branch's users.	
ES	Main, City 2	Director	-	Director (myself), with support of several improvement groups.	No. All branches depend on the Central Library, so any innovation must be supervised by me.	No. All branches depend on the Central Library, so any innovation must be supervised by me.	Central
FIN	Main, City 1	?	Proposals from Central, distributed to branches	Central proposes, suggest proposals to branches.	-	Can accept or reject proposals.	Network
FIN	Branch, City 2	-	Library development networks for Vantaa	Local libraries have autonomy in whether to accept proposals	Central shared e-system for collections from National library, shared system for capital region, so some regional decision making.	Can accept or reject proposals. Branches rarely develop something for themselves, networks pivotal.	Network
NL	Main, city 1	Advisor	Branches can pilot new services	Groups of district libraries, branches, IT & finance centralized.	ICT & software coordinated by central library.	Loose structure, not strong hierarchy.	Matrix
NL	Main, City 2	Head libraCentrian	Any level, but a branch proposal will be discussed by team (district) leader	Groups of district libraries,	Finance (anything that will cost more \$ needs to be approved by central library), marketing by central library.	Yes, branches /districts, but some coordinated by central, districts also have their own networks.	Network
NL	Branch, City 2	Branch librarian	Any level, but financial power at Central, other at district	Central, district	Central coordinating direction, especially for finance. District managers make decisions for sub-regions.	Mostly at district level, but branches can make proposals.	Network



Country	Org	Position	Proposals	Decision	Decision varies by innov type?	Branch decision making power?	TYPE
Germany	Main	Director	Central – not state or federal	Library, but changes to opening hours must get political approval	-	Central approves branch proposals, but district libraries can develop ideas on their own, good ideas are transferred to the library network.	Central/ networked
Austria	Main	-	Anyone	Central, branch, groups of branches, but need permission from central library.	Strategic: digitalization, opening hours made by central	A branch can suggest an innovation, but even if it does not require resources and is for one branch only needs central library approval.	Central



8 Annex B: English versions of the three questionnaires

8.1 University Questionnaire

This survey is about how your library develops new or improved services for your library’s users and new or improved administrative and other types of processes. Services include any type of service offered by the university library such as providing access to information both digitally and physically, and support services for library users.

Library users include anyone who may access your library (**either online or in person**). This mostly includes academics, researchers, students, and university staff.

Section A asks general questions on your library and how all new or improved services or processes are developed. Section B asks you to identify a single new or improved service or process and to answer questions on how it was developed. Section C asks for basic background information.

A. General questions on your library

A.1 How important are the following activities to your library?

	Low or not at all	Moderate	High
a) Providing information or access to publications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Holding community or cultural activities (seminars, exhibits, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Providing space and equipment for user projects, such as makerspaces, fablabs, podcast studios, 3D printers, video rooms, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A.2 In the last three years, how frequently did the following statements apply to your library?

	Almost always	Mostly	Some- times	Almost never	Not relevant
a) Senior management gave high priority to new ideas or new ways of working	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Senior management strongly supported developing new or improved services or processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Library staff were highly motivated to think of ideas for new or improved services or processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Sufficient financial resources were available to develop new or improved services or processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) A major goal for all changes to services or processes was to reduce costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



A.3 In the last three years, did your library employ one or more staff who were highly skilled in the following areas?

(Tick **all** that apply)

- a) Change or innovation management
- b) Design thinking or user experience (UX) to involve users in plans for library improvements
- c) Digital literacy (knowing which digital technology to use to solve a problem or information request)
- d) Information technology (data science, data security, automation, etc.)
- e) Artificial Intelligence (natural language processing, large language models, optical character or handwritten text recognition, etc.)
- f) **None of the above**

A.4 In the last three years, did your library **introduce** any of the following types of **new or improved** services or processes:

(Tick **all** that apply)

- a) Services to support research.....
- b) Services to support students
- c) Processes for delivering services to new or current library users.....
- d) Methods for communicating with new or current library users.....
- e) Administrative or back-office processes (IT, maintenance, purchasing, accounting, human resources, etc.)
- f) Digitization of collections or access to collections
- g) Changes to the building design or use of library space
- h) Other (please describe).....

- i) **None of the above**: no new or improved services or processes

Go to question A.5 if you responded ‘**yes**’ to any new or improved services or processes in question A.4.

If you answered ‘none of the above’ in A.4, go to question A.6.



A.5 In the last three years, how important were the following factors as drivers of your library's new or improved services or processes?

	Low	Medium	High	Very high	Not relevant / Don't know
a) Public funding (European, national, regional, local) or other external funding for your library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) New university policies or priorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Goal to improve the experiences of your new or current users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) New technologies (digitization, artificial intelligence, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Respond to new demands or needs of your library's users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A.6 In the last three years, how important were the following factors as **obstacles** to developing new or improved services or processes in your library? (include both ongoing and occasional obstacles)

	None	Low	Medium	High
a) Unrealistic time pressures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Insufficient library staff with expertise on developing new or improved services or processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Limited digital skills of library staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Insufficient financial resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Resistance of library staff to change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) University regulations or requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Go to question B.1 if you reported new or improved services or processes in question A.4.

If you answered 'none of the above' in A.4, go to question C.1.



B: A single new or improved service (or process) in your library

All questions in this section refer to a **single** new or improved service (or process) that you are asked to select and briefly describe. Please select an example that was of **high priority** to your library or required **substantial effort** to develop and implement.

B.1 In a few sentences, please describe one of your library’s **new or improved services** that was implemented within the last three years. If no services come to mind, please describe a new or improved administrative or other process.

Please answer all remaining questions in section B only for your selected new or improved service or process

B.2 Does your selected new or improved service or process have any of the following characteristics?

(New or improved services or processes can have multiple characteristics. For example, a new service can require improvements to administrative processes or involve a new delivery method.)

(Tick **all** that apply)

- a) A new or improved service for supporting research or students.....
- b) A new or improved process for delivering services to library users.....
- c) A new or improved communication method for library users.....
- d) A new or improved administrative or other process
- e) A new or improved building design or use of library space
- f) Other (please describe).....



B.3 Did your selected new or improved service or process involve **developing** or **applying** technologies such as:

(Tick **all** that apply)

- a) Digitization of data (photos, text, collections, administrative records, etc.)
 - b) Automated systems.....
 - c) Apps for mobile phones, tablets, or personal computers
 - d) Artificial intelligence (AI) (*includes natural language processing, large language models, optical character recognition, handwritten text recognition, etc.*)
 - e) Other (please describe).....
-
- f) **None of the above**

B.4 Who contributed to the **original idea** for your selected new or improved service or process? (*Exclude assistance obtained during the development of this new or improved service or process*)

(Tick **all** that apply)

- a) Government (national, regional, local policy makers, politicians, policy documents, etc.).....
- b) Your university (Executive board / council, IT department, etc.)
- c) Yourself or other library employees.....
- d) Library users (faculty, students, researchers, etc.).....
- e) Other university, national, or municipal libraries (good practice examples, etc.)*
- f) Library associations*
- g) Other (please describe).....

* For both e and f, **include international** libraries or library organisations

B.4a Which of the above was the most important contributor to the original idea for your selected new or improved service or process?

_____ (insert letter from question B.4 above)



Methods for developing your selected new or improved service or process

B.5 Which of the following sentences **best** describes how your library developed your selected new or improved service or process:

(Tick **one** box only)

- a) By **adopting** a service or process already in use by other libraries or organisations*, with very few or no additional changes
- b) By **modifying** a service or process already in use by other libraries or organisations*
- c) By **collaborating** with other libraries or organisations*
- d) By **developing this service or process primarily in-house** or with your university (little or no assistance from other libraries or organisations)

*'Other organisations' include businesses, NGOs, consultants, governments, etc.

B.6 Did your library conduct any of the following activities as part of developing your selected new or improved service or process?

	Yes	No	Don't know
a) Evaluate good practices of other university, national or public libraries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Research to identify different types of users for this service or process*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Pilot a prototype of this service or process with potential users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* The users of administrative or other processes are library staff.

B.7 How important were the following external sources for collaboration partners, technical knowledge, or assistance for developing your selected new or improved service or process?

	None / Don't know	Low	Medium	High
a) IT or other departments of your university	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Other university, national or municipal libraries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Library associations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Government agencies or departments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) NGOs (non-government organizations) or non-profits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Businesses including consultants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Providers of specialised software or ICT equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Involvement of library staff and library users

B.8 Did your library use any of the following methods to obtain useful input from library staff or library users for developing your selected new or improved service or process?

	Yes	No	Don't know
a) Focus groups or workshops to identify challenges or unmet needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Focus groups or workshops to generate solutions to challenges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) One-on-one conversations between library staff and users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Surveys on experiences with previous or similar services or processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Crowdsourcing methods to collect ideas or solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Services of design firms, innovation labs or living labs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B.9 How useful was input from the following groups on the **challenges** to be addressed by your selected new or improved service or process?

	None (not asked for input)	Low	Medium	High
a) Library managers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Administrative or front-line library staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Faculty or researchers as library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Students as library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B.10 How useful was input from the following groups on the **solutions** (final characteristics) of your selected new or improved service or process?

	None (not asked for input)	Low	Medium	High
a) Library managers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Administrative or front-line library staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Faculty or researchers as library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Students as library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



B.11 Were any of the following groups involved in focus groups or workshops to identify challenges or solutions for your selected new or improved service or process?

	Yes	No	Don't know
a) Library management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Administrative or front-line library staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Faculty or researchers as library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Students as library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

f) None (no focus groups or workshops conducted)

B.12 How important were the following factors as obstacles to involving **library users** in focus groups or workshops as part of developing your selected new or improved service or process?

	None	Low	Medium	High	Not relevant
a) Reluctance of library staff to include library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Lack of experience in involving library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Difficulties in finding potential or current library users willing to participate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Insufficient time or financial resources for including library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Evaluation and resources

B.13 Was your selected new or improved service or process evaluated after implementation?

(Tick **one** box only)

- a) Yes.....
- b) No, and no plans for an evaluation.....
- c) No, but it will be evaluated in the future.....

B.14 Did your library receive **dedicated resources** to develop or implement your selected new or improved service or process? (*exclude funding or staff to operate this service or process after its introduction*)

- | | Yes | No |
|--|--------------------------|--------------------------|
| a) University or library funding | <input type="checkbox"/> | <input type="checkbox"/> |
| b) External funding (government, philanthropists, crowdfunding, etc.) | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Additional library staff (redeployed, temporary or new hires, etc.) | <input type="checkbox"/> | <input type="checkbox"/> |

Outcomes

B.15 What were the effects of your selected new or improved service or process on the following outcomes?

	Strong positive effect	Moderate positive effect	Minor positive effect	No effect	Negative effect	Too soon to tell /not relevant
a) Improve access to information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Use or design of library space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Ease of use of processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Improve user experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Satisfaction of library staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Outreach to new types of library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Community building among users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



C. Background information

C.1 How many employees (head count) work at your library?

(Tick **one** box only)

- a) Less than 49.....
- b) 50 to 249.....
- c) 250 or more.....
- d) Don't know

C.2 How long have you worked in the library sector?

(Tick **one** box only)

- a) Less than five years
- b) Five years to less than ten years.....
- c) Ten years or more.....

C.3 What is your job title? _____

Do you have any comments to add?



8.2 Main Public Library Questionnaire

This survey is about how your library develops new or improved services for your library’s users and new or improved administrative and other types of processes.

Library users include anyone who may access your library (either online or in person), including previous, current or potential (future) library users.

Section A asks general questions on your library and how all new or improved services or processes are developed. Section B asks you to identify a single new or improved service or process and to answer questions on how it was developed. Section C asks for basic background information.

A. General questions on your library

A1 Which of the following best describes your library?

- a) The only library serving a municipality or region
- b) The main library in a municipality or region with branch libraries or other small libraries
- c) Other (please describe).....

Please answer all further questions for your library only unless requested otherwise.

A2 How important to your library’s goals are the following activities or functions? *(This list excludes core functions such as book loans, providing a place for reading or studying etc.)*

	Not at all	Low	Moderate	High
a) Educational classes or lectures provided by the library or other organizations (e.g. language, fitness, health classes etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Community or cultural activities (exhibitions, public debates, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) A place where people can use library facilities (Makerspace, Fablab, etc.) for their own creative projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A place where people can collaborate to develop or provide activities to address their own needs, such as cross-cultural activities, writing groups, social entrepreneurship, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



A3 In the last three years, how frequently did the following statements apply to your library?

	Always	Often	Rarely	Don't know
a) Management strongly supported developing new or improved services or processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Non-managerial staff were highly motivated to think of ideas for new or improved services or processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A4 In the last three years, did your library have one or more staff with competencies in the following areas?

(Tick **all** that apply)

- a) Change or innovation management
- b) Design thinking or other methods for involving library users in developing library services.....
- c) Digital literacy (knowing which digital technology to use to solve a problem or information request)
- d) Artificial Intelligence (natural language processing, large language models, optical character or handwritten text recognition, etc.)
- e) **None of the above**

A4a In the last three years, did your library obtain assistance for any of the above competencies through a regional, national, or international library association?

- Yes
- No
- Don't know

A5 In the last three years, did your library **introduce** any **new or improved services or processes** for:

(Tick **all** that apply)

- a) Collections (e-books, printed books, music, DVDs, etc.).....
- b) Educational programs (literacy, health or language courses, etc.).....
- c) Cultural or community programs
- d) Methods for delivering or communicating services to library users
- e) Changes to the building design or use of library space to better meet library user needs
- f) Administrative or other work processes (purchasing, accounting, human resources, building maintenance, etc.)
- g) Other (please describe).....

- h) **None of the above:** no new or improved services or processes



Go to Question A6 if you responded **'yes'** to any new or improved services or processes in question A5.

If you answered 'none of the above' in A5, go to question A7.

A6 In the last three years, how important were the following factors as **drivers** of your library's new or improved services or processes?

	Not at all	Low	Medium	High
a) Municipal or regional legislation or policies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) New media and technologies (digitalization, artificial intelligence (AI), etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Suggestions from non-profit organizations (NGOs, schools, providers of health, social, educational services, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Suggestions from library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Societal changes or expectations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A7 In the last three years, how important were the following factors as **obstacles** to developing new or improved services or processes in your library?

	Not at all	Low	Medium	High
a) Unrealistic time pressures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Insufficient staff with experience on how to develop new or improved services or processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Insufficient staff to take on new work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Insufficient financial resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Library staff uninterested or resistant to change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Lack of support by municipal or regional government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Go to Question B1 if you reported new or improved services or processes in Question A5.

If you answered 'none of the above' in A5, go to question C1.



B. This section asks questions about a single new or improved service or process in your library

B1 Briefly describe a new or improved service that your library **introduced within the last three years**. Select an example that was of high priority to your library or of high expected value for your library users. If no services come to mind, describe a new or improved process.

Please note that all remaining questions in section B only ask about this single new or improved service or process.

B2 Was the purpose of this new or improved service or process to benefit:

(Tick **one** only)

- a) Your library's users
- b) Administrative or other processes
- c) Both your library's users and processes
- d) Other (please describe).....

B3 Was this new or improved service or process:

(Tick **one** only)

- a) Only implemented in your main library
- b) Only implemented in your branch libraries or other libraries*
- c) Implemented in both your main library and in one or more branch or other libraries.....
- d) Other (please describe).....

**Other libraries include school and unaffiliated libraries within your municipality or region, and libraries outside your municipality or region, etc.*



B4 Did this new or improved service or process involve **digital technologies, automated systems, apps, or artificial intelligence (AI)**?

- Yes
- No
- Don't know

B5 Where did the **funding** to develop this new or improved service or process come from? (*exclude funding to operate this service or process after its introduction*)

	Yes	No	Don't know
a) From the annual library budget	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) From special government funding (municipal, regional, national, EU) in addition to the annual library budget	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) From other sources (philanthropists, crowdfunding, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B6 Were the effects of this new or improved service or process **evaluated** after implementation?

(Tick **one** box only)

- a) Yes
- b) No, and no plans for an evaluation
- c) No, but it will be evaluated in the future

Development of this new or improved service or process

B7 Which of the following sentences **best** describes how your library developed this new or improved service or process:

(Tick **one** box only)

- a) By **adopting** a service or process already in use by other libraries or organizations, with few or no additional changes
- b) By **modifying** a service or process already in use by other libraries or organizations
- c) By **collaboratively** developing this new or improved service or process with other libraries or organizations* (exclude your branch libraries)
- d) By **developing this new or improved service or process primarily in-house** or with your branch libraries, with little assistance from external organizations

*Organizations can include municipal governments, other governments, businesses, consultants; health, social services or educational organizations, community groups, etc.



B8 Did your library use any of the following methods to **obtain ideas** from your library staff or library users for **developing** this new or improved service or process?

	Yes	No	Don't know
a) Informal conversations between library staff and library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Internal discussions among library staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) 'Suggestion box' (online or in the library) for new ideas from library staff or library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Surveys on the experiences of library users with previous or similar services or processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Other (please describe)	<input type="checkbox"/>		

B9 As part of developing this new or improved service or process, did your library conduct **focus groups, design thinking exercises, brainstorming sessions, or workshops** to:

	Yes	No	Don't know
a) Identify challenges or unmet needs to be addressed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generate solutions to these challenges or unmet needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Other reasons (please describe)	<input type="checkbox"/>		

If you ticked yes to any option in B9 go to B10, otherwise go to B12

B10 Were the following types of individuals involved in any of these **focus groups, design thinking exercises, brainstorming sessions, or workshops** to develop this new or improved service or process?

	Yes	No	Don't know
a) Library managers at your main library or library branches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Non-managerial library staff at your main library or library branches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Current or potential library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Representatives from non-profit organizations (local NGOs, schools, health or education providers, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Representatives from businesses or consultants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Other (please describe)	<input type="checkbox"/>		



B.11 How important were the following factors as **obstacles to involving** current or potential **library users** in these focus groups, design thinking exercises, brainstorming sessions, or workshops?

	Not at all	Low	Medium	High
f) Reluctance of library staff to include library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Library staff lacked experience in involving library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Difficulties in finding library users willing to participate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Insufficient time or funding to include library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B.12 Overall, how useful was input obtained, through any means, from the following groups to the development of this new or improved service or process?

	Not used (no input from this group)	Slightly useful	Moderately useful	Very useful
a) Library managers at your main or branch libraries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Non-managerial staff at your main or branch libraries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Managers or staff from other libraries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Current or potential library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Non-profit organizations (local NGOs, schools, health or education providers, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Businesses or consultants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Regional, national or international library associations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Municipal government or politicians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Outcomes from this new or improved service or process

B.13 What were the **effects** of this new or improved service or process on the following outcomes?

	Strong positive effect	Moderate positive effect	Minor positive effect	Negative effect	Not relevant / too soon to know
i) Design or use of library space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Simplicity or ease of processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k) Variety of services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l) Library user experiences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m) Library user skills (literacy, digital, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n) Ease of access to information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o) Satisfaction of library employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p) Outreach to new library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q) Networking among library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
r) Social interactions between library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C: Background information

C.1 How many employees (head count) work at your library (exclude branch libraries)?

(Tick **one** box only)

- a) Less than 49.....
- b) 50 to 249
- c) 250 or more.....
- d) Don't know

C.2 How long have you worked in the library sector?

(Tick **one** box only)

- a) Less than five years
- b) Five years to less than ten years.....
- c) Ten years or more.....

C.3 What is your job title? _____



Do you have any comments to add?



8.3 Branch Public Library Questionnaire

This survey is about how your branch library develops new or improved services for your library’s users and new or improved administrative and other types of processes.

Library users include anyone who may access your library (either online or in person), including previous or current library users, and potential non-users who might use your library in the future.

Senior management refers to the main decision makers for all libraries within your municipal library system. They may be employed in your municipality’s main library or elsewhere.

A. General questions on your library

A.1 In the last three years, how frequently did the following statements apply to your branch library?

	Almost always	Mostly	Some- times	Almost never	Not relevant
a) Senior management strongly supported developing new ideas for services or processes (new ways of working) in your branch library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Library staff at your branch were highly motivated to think of ideas for new or improved services or processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A2 In the last three years, did your library **introduce** any **new or improved services** or **processes** for:

(Tick **all** that apply)

- b) Collections (e-books, printed books, music, DVDs, etc.).....
- b) Educational programs (literacy, health or language courses, etc.).....
- c) Cultural or community programs
- d) New or improved programs to serve disadvantaged groups
- e) Methods for delivering or communicating services to library users
- f) Changes to the building design or use of library space to better meet library user needs
- g) Administrative or other work processes (purchasing, accounting, human resources, building maintenance, etc.)
- h) Other (please describe).....

- i) **None of the above:** no new or improved services or processes



A3 In the last three years, how important were the following factors as obstacles to developing new or improved services or processes for your branch library?

	None	Low	Medium	High
h) Lack of autonomy to implement new ideas proposed by staff at your branch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Library staff at your branch lack expertise on how to develop new or improved services or processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Insufficient staff at your branch to take on new work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k) Insufficient financial resources for your branch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l) Staff at your branch uninterested or resistant to change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m) Lack of support by senior management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Go to Question B1 if you responded **'yes'** to any new or improved services or processes in questions A2.

Otherwise go to question C1

B. This section asks questions about new or improved services or processes in your library

B1 In the last three years, how important were the following drivers for your branch library's new or improved services or processes?

	Low	Medium	High	Not relevant
a) Municipal policies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Main library policies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Suggestions from your branch library's users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Needs (health, social, educational, etc.) of the community served by your branch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Societal expectations for better library services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



B2 In the last three years, did your branch library develop or implement any of your new or improved services or processes in the following ways:

	Yes	No	Don't know
a) Staff at your branch worked collaboratively with other libraries within your municipal library system to develop a new or improved service or process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Senior management required your branch to implement a new or improved service or process that was developed elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Staff at your branch largely developed a new or improved service or process without input from other libraries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B3 In the last three years, were any of the new or improved services or processes in your branch library:

Tick **all that apply**

- a) Only implemented in your branch
- b) Implemented in your branch and in other branch libraries
- c) Implemented in your branch and in your municipality's main library

B4 Where did **funding** to develop or implement any of your branch library's new or improved services or processes come from? (*exclude funding to operate this service or process after its introduction*)

	Yes	No	Don't know
d) From the annual library budget for your branch or municipal library system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) From special government funding (municipal, regional, national, EU) in addition to the annual library budget	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) From other sources (philanthropists, crowdfunding, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B5 In the last three years, did your branch library **use any of the following methods** to obtain ideas from your branch library's users for developing new or improved services or processes?

	Yes	No	Don't know
a) Informal conversations between your branch library staff and library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 'Suggestion box' or social networks to get new ideas from library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Surveys on the experiences of your branch library's users with previous or similar services or processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Focus groups, brainstorming sessions or workshops with your branch library's users to identify challenges or unmet user needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Focus groups, brainstorming sessions or workshops with your branch library's users to generate solutions to challenges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Other (please describe)	<input type="checkbox"/>		



B.6 In the last three years, how important were the following factors as **obstacles** to involving your branch library’s users in developing new or improved services or processes?

	None	Low	Medium	High	Not relevant
a) Reluctance of your branch library staff to include library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Your branch library staff lacked experience in involving library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Difficulties in finding branch library users willing to participate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Insufficient staff, time or funding to include branch library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B7 In the last three years, **how useful was input**, obtained through any means, from the following groups for developing your branch library’s new or improved services or processes?

	Not used (no input from this group)	Slightly useful	Moderately useful	Very useful
b) Senior management or other staff at your municipality’s main library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Managers or other staff from other branch libraries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Managers or other staff at your branch library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Your branch library’s users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Non-profit organizations (local NGOs, schools, health or education providers, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Businesses or consultants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B8 In the last three years, were any of your branch library’s new or improved services or processes evaluated after implementation?

(Tick **one** box only)

- a) Yes
- b) No, and no plans for an evaluation
- c) No, but it will be evaluated in the future



B9 In the last three years, what were the **effects** of your branch library’s new or improved services or processes on the following outcomes?

	Strong positive effect	Moderate positive effect	Minor positive effect	Negative effect	Not relevant / too soon to know
t) Design or use of library space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
u) Simplicity or ease of processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) Library user experiences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
w) Library user skills (literacy, digital, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
x) Ease of access to information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
y) Satisfaction of library employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
z) Outreach to new library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
aa) Social interactions or networking between library users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
bb) Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C: Background information

C.1 How many employees (head count) work at your branch library?

(Tick **one** box only)

- a) Less than 10.....
- b) 11 to 49.....
- c) 50 or more.....
- d) Don't know

C.2 Is your branch part of a regional network of libraries?

- Yes
- No

C.3 How long have you worked in the library sector?

(Tick **one** box only)

- a) Less than five years
- b) Five years to less than ten years.....
- c) Ten years or more.....



Do you have any comments to add?