Sustainability pillars in the strategic plans of European Union national libraries

Mumelaš, Dolores
dmumelas@nsk.hr
National and University Library in Zagreb, Senior Librarian in the User Services Department

This study aims to investigate the integration of sustainability principles into the strategic plans of national libraries within the European Union (EU-27). Content analysis was conducted on 22 strategic plans of national libraries to identify chapters, sections, or objectives explicitly mentioning sustainability, as well as keywords related to the four pillars of sustainability: environmental, economic, social and cultural. The analysis revealed varying degrees of emphasis on sustainability across the national libraries. The findings provide valuable guidance for national libraries seeking to strengthen their commitment to sustainable development and align their operations with global sustainability goals.

national libraries, strategic plans, sustainability pillars, EU-27, content analysis

Detailed Summary

Objective: This study aims to investigate the integration of sustainability principles into the strategic plans of national libraries within the European Union (EU-27), with a focus on identifying the frequency and depth of mention of sustainability pillars.

Methodology: The study employs content analysis of strategic plans available online from EU-27 national libraries. A list of EU-27 national libraries was compiled, and their websites were explored to gather strategic plans. Content analysis was conducted on 22 strategic plans of national libraries to identify chapters, sections, or objectives explicitly mentioning sustainability, as well as keywords related to the four pillars of sustainability: environmental, economic, social and cultural.

Results: The strategic plans analysed revealed varying degrees of emphasis on sustainability across the national libraries. While some libraries dedicate entire chapters to sustainability, others incorporate sustainability goals within broader objectives. Commonly mentioned topics include environmentally conscious management, professional development of library staff, and promotion of cultural heritage. The analysis also identified inconsistencies in the coverage of sustainability pillars, with some libraries neglecting certain aspects such as economic viability or social equity. It has been observed that the majority of national libraries predominantly mention terms related to cultural sustainability in their strategic plans.

Originality/Value: This study is a contribution to the understanding of how national libraries within the EU prioritise sustainability in their strategic planning. By identifying patterns of mention and areas of emphasis, the research provides insights into the integration of sustainability principles within library governance structures. The findings provide valuable guidance for national libraries seeking to strengthen their commitment to sustainable development and align their operations with global sustainability goals.

Libraries and sustainable development

In 2015, the United Nations (UN) adopted the Sustainable Development Goals (hereinafter referred to as SDGs) as part of the 2030 Agenda, a set of 17 goals to be achieved by the end of 2030 to maintain sustainable development on our planet (UN, 2015). The expectation is that the UN's 2030 Agenda will help all UN member states focus on eradicating poverty, addressing climate change, and promoting human development (Bradley, 2016). According to Cyr and Coonaway (2020), libraries contribute to achieving the SDGs in their communities through various initiatives, programmes, and activities, connecting people with information related to sustainable development and environmental protection.

It can be concluded that libraries, through their multiple roles, are not only centres of knowledge but also central to promoting sustainable practices and fostering an informed and proactive society.

Missingham (2021) adds that libraries are an important crucial element in the economic, social, and educational structure within countries, providing services that enhance community well-being and economic outcomes. Expanding the understanding of the value of libraries by exploring the SDGs has become a significant activity within the library community. Libraries encourage innovation, creativity, and access to the world's knowledge for current and future generations (IFLA, 2019). Ungebu, Immaculata, and Nkecki Emuchay published a paper in 2023 linking the role of libraries and librarians to the implementation of SDGs. They highlighted that libraries and librarians can support SDGs through the following activities: ensuring research visibility, policy formulation, advocacy and awareness programmes, collaboration with NGOs and other public sector entities, formal and informal training, promoting open access initiatives, improving literacy among citizens, motivation, and evaluation (Ungebu, Immaculata and Emuchay, 2023).

Čadovska and Tkalčić (2017) highlight that libraries are ideal institutions for fostering ecological ideas and promoting awareness of sustainable development, as they provide access to information, human resources, technology, and physical space. Libraries also play a key role in contributing to the acquisition of knowledge, skills, and competencies necessary for critical thinking and action, which can lead to economic progress and the building of an inclusive society (Kraljević and Afrić Rakitovac, 2021).

Extremely important for the implementation of SDGs in library operations and the successful promotion of ecological awareness are the personal habits of employees, the degree of personal ecological awareness, and competencies based on acquired knowledge and skills. There is also a need for sensitivity to ecological issues (Mumelaš and Klemar Bubić, 2024). Libraries that implement SDGs are often referred to as green libraries. The green library is a multi-layered concept with several components, such as green buildings, green operations

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and practices, green programmes and services, green information systems, and green collections (Kurbanoğlu and Boustany, 2014). Hauke (2017) emphasises that green libraries focus on services, activities, events, literature and projects related to all types of sustainability according to the UN 2030 Agenda, thereby demonstrating their social role and responsibility as leaders in sustainability education. The importance of green libraries lies in their key role in raising social awareness of the need for sustainable development through the provision of educational resources and innovative programmes.

The pillars of SDG

In 1994, John Elkington introduced the framework for sustainability called the Triple Bottom Line concept, which represents the inextricable interaction and interdependence between the fundamental pillars of sustainability, and states that they must all be balanced (Elkington, 1994). These pillars include environmental, economic, and social sustainability issues. Environmental sustainability focuses on maintaining environmental quality, essential for economic activities and people's quality of life. Social sustainability aims to ensure human rights and equality, preserve cultural identity, and respect cultural diversity, race, and religion. Economic sustainability is necessary to maintain the natural, social, and human capital required for income and living standards. Achieving full sustainable development requires a balance between all these pillars, which is challenging because each pillar must respect the interests of the others to avoid creating an imbalance (Klarin, 2018).

Environmental sustainability involves caring for the environment by producing renewable resources such as water, air, forests, and solar energy. It is the ability to maintain a valued standard of living within the physical environment without compromise. Libraries can significantly contribute to achieving sustainability by excelling in all aspects of green practices (Singh and Mishra, 2019). They also should encourage the development of environmentally friendly library buildings. These structures are more cost-effective to run and maintain compared to traditional buildings, consume less energy and natural resources, offer enhanced comfort, increased daylight, and are more appealing to both library patrons and staff (Brown, 2003). The promotion of environmental sustainability within libraries can establish connections with various stakeholders and strengthen the principles and ethics that guide the library's daily operations, thus offering a fresh perspective to the public (Dias, 2017).

In terms of economic sustainability, we can count with the examination of library funding sources, exploration of avenues to cut expenses, and devising business strategies to enhance the economic sustainability of organizational cultural contributions are crucial (Loack, Rowley and Griffiths, 2016). Public relations, image, and marketing also play a role in economic sustainability. Peacemaker, Robinson and Hurst (2016) suggest that libraries adopt best practices in public relations to address their social media planning questions. Effective social media management for academic libraries hinges on two key areas: content strategies and evaluation. By employing effective public relations and marketing strategies, libraries can enhance their visibility and reputation, which, in turn, can lead to increased funding opportunities and resource allocation.

In the context of social sustainability, Scott et al. assert that libraries contribute to community building by ensuring that information is accessible to all and by serving as open meeting spaces. She also mentions social inclusion and equity,

civic engagement, community involvement, and economic vitality. The provision of free information is seen as essential for a healthy democracy, with the role of the library being that when library users engage with information in open discussion, they promote a deeper understanding of the world and help to build rational consensus (Scott et al., 2011).

Gaining new skills and forming new friendships within the library environment serves as a dynamic resource for enhancing the social development of adult learners within the community and globally (Panda and Das, 2022). Moreover, social sustainability and librarians' professional development are linked, as improving librarians' skills and knowledge directly contributes to building stronger, more informed and cohesive communities.

In 2017, Loach, Rowley, and Griffiths presented a paper that linked these pillars with museums and libraries and added a fourth pillar: cultural sustainability. Cultural sustainability is associated with the role of libraries in preserving cultural artefacts, cultural traditions and history, organising cultural events, and providing cultural inspiration (Loach, Rowley and Griffiths, 2017). Loach and Rowley (2022) introduced a conceptual framework for managing internal organizational sustainability to external cultural sustainability agendas in independent libraries and mentioned aspects, such as heritage preservation, cultural diversity, cultural identity, and cultural vitality.

The social dimension of sustainability is evident through libraries' role in nurturing an inclusive and sustainable information society. Similarly, the economic aspect is reflected in the sustainable management and development of library collections, as well as in the enhancement of library services to ensure greater effectiveness and efficiency. Environmentally, libraries demonstrate sustainability through the design of eco-friendly buildings and efforts to reduce greenhouse gas emissions associated with their operations, alongside the adoption of ICT standards. Finally, the cultural dimension includes the preservation and accessibility of cultural heritage in libraries, as well as considerations related to the architectural design or renovation of library structures. These dimensions are interconnected in various ways, offering ample opportunities for further research and exploration of new approaches to achieving SDGs (Kamińska, Opaliński and Wyciślik, 2022).

An intriguing study was published in 2022, based on a literature review on sustainability and libraries, inspired by the hermeneutic literature review method. The results provided a holistic understanding, encompassing all four components of sustainability and sustainable development - environmental, economic, social and cultural - in the overlap between the four circles. The square represents the library and the library field. Around the square, the four main rationales - optimisation, legitimation, demonstration and transformation - are related to the core concept uses and understandings in which they are most prevalent. Based on the research, a model was created to conceptualise the different understandings of sustainability and sustainable development, the rationales behind them and their possible implications for libraries and librarians (Mathiasson and Jochumsen, 2022).

The abovementioned pillars of sustainability are very often implemented in the operations of all types of libraries, so they could introduce the four pillars of sustainability into their operations in various ways. This includes researching funding sources, reducing costs, and devising business strategies to improve the economic sustainability of libraries. In addition, adopting best practices in

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public relations and marketing can help strengthen library visibility and attract more resources. Moreover, libraries can actively participate in community building by ensuring access to information for all. They also serve as open spaces for meetings and other activities. Furthermore, through environmentally conscious practices such as designing eco-friendly buildings and reducing greenhouse gas emissions, libraries can demonstrate their commitment to environmental sustainability. Ultimately, preserving and providing access to cultural heritage in libraries can contribute to cultural sustainability within the community. Integrating these sustainability dimensions into libraries' strategic plans can enhance their role in achieving SDGs.

Several studies on similar topics have been found. McInnes published a paper in 2011, titled *Strategic Plans and National Libraries: Planning within a Changing Context*, where she explores the efficacy of strategic plans amidst changing conditions. The study reviews the experiences of 14 national libraries in crafting and implementing strategic plans, highlighting key factors that support sustainability in a dynamic environment. Using a questionnaire, she analysed the following factors: social changes, technological changes, changes in user behaviour, digital preservation, and skills and knowledge. Based on the results, she proposed that effective strategic planning is underpinned by the five I's: impact, inclusiveness, integration, innovation, and imagination. All these factors have been recognised as strategic priorities essential for libraries to function successfully and sustainably both now and in the future (McInnes, 2009). A 2006 study, titled *Libraries and Environmental Management* was published, analysing mission and value statements and their public statements about their contribution to environmental issues from a sample of several large libraries. While libraries' primary functions may revolve around learning, knowledge, digital citizenship, innovation, and information, their dedication to their communities and society should also extend to environmental concerns. This commitment should be organised and clearly defined, and it can be implemented through environmental policies, accompanied by specific targets and suitable management systems (Rowley, 2006). In 2019, a study was conducted in Sweden on how public libraries are portrayed as contributing to social sustainability. For this purpose, library plans from five municipalities in Sweden were analysed, using the key search terms „library plan" and „sustainable." The authors concluded that libraries may contribute to social sustainability and democracy by being places where social antagonisms can be transformed into agonisms (Engström and Rivano Eckerdal 2019).

Integrating the pillars of sustainability — environmental, economic, social and cultural — into the strategic plans of national libraries is crucial for their long-term success and relevance. National libraries play a pivotal role in society, not only as custodians of knowledge and cultural heritage but also as active participants in promoting sustainable development. By embedding these sustainability pillars into their strategic plans, national libraries can demonstrate their commitment to sustainable development, ensuring that they not only serve their communities today but also preserve resources and opportunities for future generations. Moreover, clear and organised strategic plans that incorporate sustainability goals provide a roadmap for libraries to navigate changing social, technological, and environmental landscapes effectively.

Despite the clear benefits, the integration of sustainability pillars into the strategic plans of national libraries has not been extensively researched. The lack of

extensive research on this integration presents an opportunity to conduct this study, exploring how national libraries can effectively align their activities with sustainability goals. This alignment would ensure their operations and contributions remain robust, relevant, and resilient in a rapidly evolving world.

Research Methodology

The aim of the research is to determine which segments of SDG pillars are mentioned in the strategic plans of national libraries of the European Union (EU-27). The EU-27 member states have been selected because they share certain common characteristics and values, and are connected by shared political, economic, and social structures through their membership in the EU. The following research questions arise from this objective:

RQ1: Do the strategic plans of the EU-27 national libraries contain separate chapters, sections, or objectives that explicitly mention sustainability?

RQ2: Which pillars of sustainability are most frequently elaborated in the strategic plans of the EU-27 national libraries?

The research sample consist of the online accessible strategic plans of national libraries from the EU-27 countries. For the purposes of the research, a list of the EU-27 national libraries was compiled, and their websites were examined. The websites were explored in the native language of the country where the library is located, and translated using the translation tool built into Google Chrome (pages were automatically translated into English). In the first phase of the website search, 17 strategic plans were found. E-mails requesting access to the strategic plans were sent to the other national libraries on 6th May 2024, with follow-up emails sent on 13th May 2024. The emails were addressed to library directors, individuals responsible for international relations and/or scientific research, public relations officers, and other relevant library staff. Based on the emails sent, five additional strategic plans were obtained.

It should be noted that the National Library of Malta's plan is defined by the *Malta Libraries Act*, and the strategic plan of the Slovak National Library was published as an article. The national libraries from Poland and Romania responded that their strategic plans are currently in the process of being developed. For the national libraries in Cyprus, Italy, and Greece, no strategic plans were found, which may be an oversight by the author of the text due to the language barrier.

The sample consists of 22 strategic plans from national libraries in the EU-27 from geographically diverse regions. Out of the 22 strategic plans examined, 10 were written in English. The others were written in the official language of the country where the national library is located. These strategic plans were fully translated into English using ChatGPT, chosen for its training in English and suitability for transliteration and translation.

Each strategic plan was examined for the presence of sustainability themes, and specifically for each of the four sustainability pillars, using the method of content analysis. The sustainability pillars were investigated, using certain keywords. For environmental sustainability, the following keywords were used: „(work) environment", „energy efficiency/energy saving (measures)", „renewable energy" (terms such as solar energy were also considered), „eco/ecology/ecological", „green", and „climate". For economic sustainability, the expressions used were: „UN Agenda/national policy/strategy" (examined the connection with national or European sustainable policies and strategy), „ (contribution to)

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economic/economy level", „(balanced) budget/finance", „(reducing) costs", „(sustainable) business (practices)„, „image/marketing/public relations". Within the social sustainability pillar, the terms examined were: „inclusive/inclusion/inclusivity", „equality", „(user, patrons) education", „professional development/education of employees", „social (impact)„, „partnership/cooperation/collaboration". In the last pillar, cultural sustainability, the keywords analyzed were: „preservation/protection (of cultural heritage)„; „digital/digitization", „promotion (of cultural heritage)", „diverse collections", „(national) tradition/history", „cultural events/programs/activities". Keywords were also considered in terms of their word roots in case of different derivations of individual words, and the context in which the words were mentioned was analysed. The analysis lasted 10 days. For each mention of a specific keyword (depending on the context), pluses were assigned, and for the absence of a specific keyword, minuses were assigned.

Results and Discussion

To address RQ1, the content of 22 strategic plans of national libraries within the EU was examined. Initially, the analysis focused on whether there are specific chapters dedicated to sustainability or any strategic goals explicitly related to sustainability. Out of the 22 national libraries, 9 do not have detailed chapters or goals directed towards sustainability. However, 7 national libraries have chapters in their strategic plans that pertain to sustainability.

Firstly, the National Széchényi Library (Hungary) stands out, with its entire strategic plan based on sustainability. This plan addresses sustainable topics, such as environmentally conscious management and planning, sustainability education, environmental performance evaluation, environmentally friendly products, reduction of energy and water consumption, waste management, and preservation of good environmental and health status. The strategic plan of the National Library of Latvia is also noteworthy, with all strategic goals specifically linked to the SDGs, covering themes such as collection, services, cultural site, and cooperation in relation to sustainability. The SS. Cyril and Methodius National Library (Bulgaria) has a dedicated chapter called *Policy for Sustainable Development and Change Management*. The National Library of the Czech Republic includes a section titled *Implementation of Sustainable Development Goals* and a chapter on *Economic Sustainability* in its strategic plan. The Royal Danish Library features a segment called *A Greener Library* and mentions *The Royal Library's Climate Strategy* in its plan. The National Library of the Netherlands has a chapter *Sustainable Development Goals*, detailing their implementation in operations, as well as a chapter titled *Sustainable Access*. The National Library of Sweden includes an entire chapter on sustainability, with a goal to „create conditions for operations The National Library's operations are efficient, sustainable, and secure, with high confidence from stakeholders and other target groups."

In six plans, there are no detailed chapters, but goals related to sustainability are highlighted. For example, the Austrian National Library has the goal *We stand for sustainability and responsibility*. The National Library of Ireland includes the goal „Implement energy-saving and sustainability initiatives across our campus, and actively contribute to combating climate change and protecting our environment." One of the goals of the Martynas Mažvydas National Library of Lithuania is „ensuring sustainable development". The National Library of Luxembourg has detailed the goal of *Sustainability* in terms of the preservation

of library collections. The National Library of Portugal lists the goal to „pursue sustainability, guiding the allocation of resources, and the design of processes and solutions based on standards of quality and efficiency." The National and University Library in Zagreb has goals such as „efficient and sustainable management of the NSK Building and Green Transition".

In examining the strategic plans of national libraries within the EU, a notable pattern emerges regarding the emphasis on sustainability. Several libraries have dedicated entire chapters to sustainability, covering topics like environmentally conscious management, sustainability education, and the reduction of energy consumption. Others, while not having full chapters, still highlight sustainability as a significant strategic goal, integrating it into their broader objectives. This demonstrates a clear recognition of the importance of sustainability across the sector. Overall, the strategic inclusion of sustainability, whether as detailed chapters or specific goals, underscores the libraries' commitment to promoting environmental responsibility and sustainable practices.

The main part of the research focused on RQ2, which encompassed the analysis of content and certain keywords, related to sustainability pillars. Within this pillar, the term „work environment" was aplied to examine how frequently libraries mention the environment in which they operate. The keyword „energy efficiency/energy saving measures" was analyzed to determine if energy saving is mentioned in the plans. The presence of the term „renewable energy" was also investigated, including words, like *solar*, *wind*, and *hydro*. Additionally, it was examined whether libraries linked their programs, activities, services, or spaces with the context of „ecology/ecological." Green, a colour associated with sustainability, was also examined as a keyword, given the well-known concept of green libraries. Finally, the keyword „climate" was used to see if national libraries were considering the importance of climate (in terms of environmental protection).

As shown in Table 1, no national library contains all the keywords (topics) selected for this study. However, several libraries included as many as five terms (Latvia and the Netherlands) and four terms (Croatia and France). Apart from the National Library of Malta, which does not mention any terms, five libraries (Estonia, Germany, Luxembourg, Slovenia and Spain) mention at least one.

The largest number of national libraries discuss the concept of „work environment" (16). This is followed by the topic of „energy efficiency/energy saving measures", which is mentioned by 13 libraries. The smallest number i.e. five national libraries discuss the topics of „renewable energy", „green", and „climate". The disparity in the coverage of these key terms might also reflect differing levels of national policy support and funding availability. Countries with more robust environmental policies and funding mechanisms are likely to see their national libraries engaging more comprehensively with sustainability topics. Conversely, in regions where such support is limited, libraries might focus on more immediate and achievable goals, like enhancing the work environment and improving energy efficiency. This is shown in the table below.

In the second pillar, economic sustainability, terms related to a sustainable economy were examined. Firstly, the connection of strategic plans with national or international policies (such as the *UN Agenda 2030*) was investigated with terms „UN Agenda/national policy/strategy". The analysis included how often the libraries' contributions to the „economic level" or „economy" of the country, given the services they provide, were mentioned.

„Overall, the strategic inclusion of sustainability, whether as detailed chapters or specific goals, underscores the libraries' commitment to promoting environmental responsibility and sustainable practices."

Environmental sustainability	work environment	energy efficience/ energy saving measures	renewable energy	ecology/ ecological/eco	green	climate
National libraries (countries)						
Austria	-	+	-	+	-	+
Belgium	+	+	-	+	-	-
Bulgaria	+	-	-	+	+	-
Croatia	-	+	-	+	+	+
Czechia	+	+	-	-	-	-
Denmark	+	-	-	-	+	+
Estonia	+	-	-	-	-	-
Finland	+	-	+	-	-	-
France	+	+	+	+	-	-
Germany	+	-	-	-	-	-
Hungary	+	+	-	+	-	-
Ireland	+	+	-	-	-	+
Latvia	+	+	+	+	+	-
Lithuania	+	+	-	-	-	-
Luxembourg	-	-	-	+	-	-
Malta	-	-	-	-	-	-
Netherlands	+	+	+	-	+	+
Portugal	-	+	+	-	-	-
Slovakia	-	+	-	-	-	-
Slovenia	+	-	-	-	-	-
Spain	+	-	-	-	-	-
Sweden	+	+	-	-	-	-
Score	16	13	5	8	5	5

Table 1. Environmental sustainability keywords in national libraries' strategic plans

The presence of „budget/finance", especially in the context of savings or additional sources of funding, was also examined. Following this, the terms „reducing costs/cost-effectiveness" were investigated to see if the library had implemented any measures to reduce costs. Additionally, the term „business", referring to sustainable business practices, was examined in the strategic plans. Finally, the terms „image/marketing/public" relations were searched to understand how national libraries consider their public image.

The results shows that no national library mentioned all the required terms in their strategic plan (Table 2). However, the national libraries from Croatia, Latvia, Lithuania, and the Netherlands mentioned five terms. Four terms were mentioned by six national libraries from the following countries: Czechia, Estonia, France, Ireland, Portugal, and Slovakia. It is interesting to note that three national libraries (Austria, Finland, and Germany) did not mention any of the six terms, related to economic viability in their strategic plans. The national libraries in Luxembourg and Malta mentioned one term each. The two terms most frequently mentioned by libraries were „budget/finance" (15) and (contribution to) „economic level" (14). These were followed by the terms „image/marketing/public

relations" (11) and „reducing costs" (10). The least represented terms in the strategic plans of national libraries were the „UN Agenda/national policy/strategy„ (8) and „(sustainable) business practices" (6).

Economic sustainability National libraries	UN Agenda/ national policy/ strategy	(contribution) to economic level	(balanced) budget/ finance	reducing costs/ cost-effective	(sustainable) business (practices)	Image/ marketing/ public relations
Austria	-	-	-	-	-	-
Belgium	-	-	+	-	-	+
Bulgaria	-	+	+	+	-	-
Croatia	+	+	+	-	+	+
Czechia	-	+	+	+	-	+
Denmark	+	+	-	-	-	-
Estonia	+	-	+	+	+	-
Finland	-	-	-	-	-	-
France	+	+	+	+	-	-
Germany	-	-	-	-	-	-
Hungary	-	+	-	+	-	+
Ireland	-	+	+	-	+	+
Latvia	+	+	+	+	+	-
Lithuania	+	+	-	+	+	+
Luxembourg	-	-	-	-	-	+
Malta	-	-	+	-	-	-
Netherlands	+	+	+	+	+	-
Portugal	+	+	+	-	-	+
Slovakia	-	+	+	+	-	+
Slovenia	-	-	+	-	-	+
Spain	-	+	+	-	-	+
Sweden	-	+	+	+	-	-
Score	8	14	15	10	6	11

Table 2. Economic sustainability keywords in national libraries' strategic plans

The variation in the inclusion of economic sustainability terms in strategic plans can be attributed to several factors. National libraries in countries with robust financial support and clear government policies on sustainability may feel more confident in addressing these topics comprehensively. Conversely, libraries in countries with limited funding or less emphasis on sustainability might focus on more immediate and manageable goals. The frequent mention of budget and finance reflects the universal importance of financial management, whereas terms like connection with national or international policies and sustainable business practices might be less prioritized due to their complexity or perceived relevance. Overall, the differing national contexts and priorities significantly influence how economic sustainability is integrated into library strategic plans.

The social sustainability pillar examined the emphasis on the social aspect of sustainability in the strategic plans of national libraries. The term „inclusivity/

inclusion" was investigated to see how national libraries consider inclusivity, while „equality" referred to equal access for all users regardless of race, age, gender, etc. Additionally, the presence of the term „(user) education" was explored to determine whether national libraries mention user education in their strategic plans. The term „professional development/education of employers/employees/library staff" was also reviewed to see if libraries consider the lifelong learning of their own staff. Furthermore, the term „social (impact)" was examined to highlight the importance libraries place on their impact on society. Finally, the terms „partnership/cooperation/collaboration" were investigated to see if libraries collaborate with other partners, associations, and/or institutions and whether this is mentioned in their strategic plans.

As it can be seen in Table 3, this term is mentioned by all (22) national libraries, The next most frequently used term is „professional development/education of employers" (20 national libraries).

Social sustainability / National libraries	inclusivity/inclusion	equality	(user) education	professional development/education of employers	social (impact)	partnership/cooperation/collaboration
Austria	-	-	+	+	-	+
Belgium	-	-	-	+	-	+
Bulgaria	+	+	+	+	+	+
Croatia	+	-	+	+	+	+
Czechia	+	-	+	+	+	+
Denmark	+	+	+	+	+	+
Estonia	+	-	+	+	+	+
Finland	-	+	+	-	+	+
France	+	+	+	+	+	+
Germany	-	-	+	-	+	+
Hungary	-	-	+	+	+	+
Ireland	+	+	-	+	+	+
Latvia	+	-	+	+	+	+
Lithuania	-	-	+	+	+	+
Luxembourg	-	-	+	+	+	+
Malta	-	+	+	+	-	+
Netherlands	+	+	+	+	+	+
Portugal	+	+	-	+	+	+
Slovakia	-	-	+	+	-	+
Slovenia	+	+	+	+	+	+
Spain	+	+	-	+	+	+
Sweden	+	+	+	+	-	+
Score	13	11	18	20	17	22

Table 3. Social sustainability keywords in national libraries' strategic plans

„(User) education" is discussed by 18 national libraries, and „social (impact)" by 17. The term „equality" is mentioned by the smallest number of national libraries (11), and a small number of respondents (13) write about „inclusivity."

All six mentioned key terms are used by the national libraries in Bulgaria, Denmark, France, Netherlands, and Slovenia. A notably large number of national libraries use five key terms related to social sustainability (Croatia, Czechia, Estonia, Ireland, Latvia, Portugal, Spain, and Sweden). The Royal Library of Belgium uses the smallest number of terms (2) in its plan.

The variation in the emphasis on social sustainability terms in national libraries' strategic plans can be attributed to differing national priorities and resources. Libraries in countries with strong social policies and funding are more likely to address inclusivity and equality comprehensively. In contrast, libraries in countries with limited resources may focus on more immediate goals such as professional development and user education. The universal mention of partnerships reflects the importance of collaboration in achieving social impact. Overall, the specific social and economic context of each country significantly influences how libraries integrate social equity into their strategic plans.

In the final sustainability pillar, cultural sustainability, mentioning various sustainable cultural elements in the strategic plans of national libraries was examined. The term „preservation/protection (of cultural heritage)" shows how much libraries emphasise the importance of preserving collections. Within this category, the term „digitalisation/digitisation" of library materials can be mentioned and considered as a form of preservation. „Promotion" in the context of promoting cultural heritage in national libraries was also investigated. As part of of any country are part of the culture, mentioning „tradition/history" was examined. The final term examined in this pillar was the presence of „cultural events/programmes/activities" for users of national libraries. The results are shown in Table 4.

All these terms are mentioned in the strategic plans of national libraries from Bulgaria, Czechia, Denmark, France, Germany, Ireland, Latvia, Lithuania, Luxembourg, Netherlands, Portugal, and Spain, making up 12 libraries. The national libraries from Austria, Belgium, Croatia, Malta, Slovakia, and Slovenia mention five terms, while all other national libraries mention four terms.

Three terms are present in the strategic plans of all libraries (22): „preservation/protection (of cultural heritage)," „digitalisation/digitisation," and „diverse collections." The term „promotion (of cultural heritage)" is mentioned by 20 national libraries, „cultural events/programmes/activities" by 17 national libraries, and the least mentioned term is „tradition/history," present in 15 libraries.

In conclusion, it is evident that national libraries prioritise the cultural sustainability pillar significantly. The emphasis on preserving collections, as demonstrated by the frequent mention of „preservation/protection (of cultural heritage)," reflects the libraries' dedication to safeguarding cultural heritage. The digitisation of materials is also a notable focus, underscoring a modern approach to preservation. Additionally, the promotion of cultural heritage, the inclusion of diverse collections, and the organisation of cultural events and activities are integral components of their strategic plans. The term „tradition/history," while less frequently mentioned, still highlights the importance of historical and traditional aspects in cultural sustainability. Overall, the integration of cultural vitality into strategic plans reflects each nation's commitment to preserving, promoting, and celebrating its cultural heritage within the context of their library services.

„The variation in the emphasis on social sustainability terms in national libraries' strategic plans can be attributed to differing national priorities and resources."

Cultural sustainabi-lity National libraries	preser-vation/ protection (of cultural heritage)	digitaliza-tion/digi-tization	promo-tion (of cultural heritage)	diverse collec-tions	(national) tradition/ history	cultural events/ programs/ activites
Austria	+	+	-	+	+	+
Belgium	+	+	+	+	+	-
Bulgaria	+	+	+	+	+	+
Croatia	+	+	+	+	-	+
Czechia	+	+	+	+	+	+
Denmark	+	+	+	+	+	+
Estonia	+	+	+	+	-	-
Finland	+	+	+	+	-	-
France	+	+	+	+	+	+
Germany	+	+	+	+	+	+
Hungary	+	+	-	+	-	+
Ireland	+	+	+	+	+	+
Latvia	+	+	+	+	+	+
Lithuania	+	+	+	+	+	+
Luxem-bourg	+	+	+	+	+	+
Malta	+	+	+	+	-	+
Netherlands	+	+	+	+	+	+
Portugal	+	+	+	+	+	+
Slovakia	+	+	+	+	-	+
Slovenia	+	+	+	+	+	-
Spain	+	+	+	+	+	+
Sweden	+	+	+	+	-	-
Score	22	22	20	22	15	17

Table 4. Cultural sustainability keywords in national libraries' strategic plans

Conclusion

In their operations, service design, and user activities, libraries actively implement the Sustainable Development Goals to educate the public about the importance of sustainable development. National libraries, as the flagship libraries of each country, should set a good example of sustainability principles and SDG pillars in their operations for all other libraries in the country. Accordingly, this study examined the four SDG pillars by addressing environmental, economic, social and cultural sustainability issues. These pillars are vital for national libraries be-cause they serve as fundamental frameworks for addressing these challenges, ensuring their resilience and effectiveness in meeting the diverse needs of their communities.

The research findings reveal a notable pattern in the strategic plans of national libraries across the EU, emphasising the importance of sustainability across different pillars. While some libraries have dedicated entire chapters to sustainability, others integrate sustainability as specific goals within their broader strategic objectives.

This reflects a clear recognition that sustainability within the library sector is important and demonstrates a commitment to promoting environmental

responsibility and sustainable practices. Furthermore, the variation in the inclusion of terms related to economic, social, and cultural sustainability underscores the diverse approaches adopted by national libraries based on their respective national contexts, priorities, and resources.

Despite this variation, the universal presence of certain terms in all libraries indicates a common understanding of the importance of addressing the environmental, economic, social and cultural aspects of sustainability within library operations and services. The prevalence of the cultural sustainability pillar in the strategic plans of most national libraries reflects the universal recognition of the significance of cultural heritage preservation and promotion. Libraries serve as custodians of cultural knowledge and artifacts, making it imperative for them to prioritize initiatives aimed at preserving and showcasing cultural heritage.

In the future, research could expand to analyze specific actions that libraries undertake to achieve sustainability, including changes in practice, educational programs, and innovative projects. Additionally, it would be beneficial to explore how sustainability is integrated into libraries' daily activities and reflected in resource management approaches and operational planning.

By incorporating sustainability into their strategic plans, national libraries demonstrate leadership in promoting responsible practices and contributing to the achievement of SDGs. Moreover, such inclusion aligns with broader global efforts towards sustainability and underscores the libraries' role as key institutions in fostering positive societal change. Additionally, integrating sustainability into strategic planning encourages libraries to adopt proactive measures, innovate, and collaborate with stakeholders to address pressing environmental and societal issues. Ultimately, embedding sustainability in strategic plans empowers national libraries to make meaningful contributions towards a more sustainable and equitable future for communities they serve.

Limitations

This research was based on the analysis of 22 national plans of European libraries. There is a possibility that the author may have misunderstood the context or did not utilize a sufficient number of keywords. Additionally, it is a fact that there are national libraries whose strategic plans were not analyzed. There is a possibility that those libraries have such plans, but the author did not find them due to a language barrier. This does not mean that these national libraries do not support sustainability. Efforts to promote sustainability and raise awareness of the SDGs are visible on the websites of all national libraries in European Union.

Literature

1. Bradley, F. (2016) *A world with universal literacy: The Role of libraries and access to information in the UN 2030 Agenda*, IFLA journal, 42, p, 118–125, https://doi.org/10.1177/0340035216647393

2. Brown, B. (2003) *The New Green Standard : with the LEED™ rating system in place it is easier to make sure your new library saves money as it treads lightly on natural resourc*, Library Journal, 128(20), p. 61–64.

3. Cyr, C., Connaway, L. S. (2020) *Libraries and the UN Sustainable Development Goals: The Past, present, and future*, Proceedings of the Association for Information Science and Technology 57(1), https://doi.org/10.1002/pra2.237

4. Čadovska, I., Tkalčić, A. M. (2017) *Zelena pismenost kao dio strategije razvoja informacijske službe*, Vjesnik bibliotekara Hrvatske, 60(1), p. 65–77. http://orcid.org/0000-0002-9486-3776

5. Dias, S. M. (2017) *Environmental sustainability for public libraries in Portugal: A first approach*, Electronic Green Journal, 1(40), p, 1–16, https://doi.org/10.5070/G314029905

6. Elkington, J. (1994) *Towards the Sustainable Corporation: Win-Win-Win Business Strategies for Sustainable Development*, California Management Review, 36(2), p. 90–100, https://doi.org/10.2307/41165746

7. Engström, L., Rivano Eckerdal, J. (2019) *Public libraries as promoters of social sustainability?*, Proceedings of CoLIS, the Tenth International Conference on Conceptions of Library and Information Science, Ljubljana, Slovenia, June 16-19, 2019, Information Research, 24, Avaliable at: https://web.archive.org/web/20191217172256/http://informationr.net/ir/24-4/colis/colis1914.html (Accessed: 2024. 05. 05.)

8. Hauke, P. (2017) *Green libraries towards green sustainable development: Best practice examples from IFLA Green Library Award 2016–2019*, IFLA WLIC, 2019. Avaliable on: https://library.ifla.org/id/eprint/2562/1/166-hauke-en.pdf (Accessed: 01 June 2024)

9. IFLA (2019) *Libraries and the SDGs a storytelling manual*, Avaliable online: https://www.ifla.org/wp-content/uploads/2019/05/assets/hq/topics/libraries-development/documents/sdg-storytelling-manual.pdf (Accessed: 2024. 05. 05.)

10. Kamińska, A. M., Opaliński Ł., Wyciślik Ł. (2022) *Literature Review*, Sustainability, 14(1), https://doi.org/10.3390/su14010441

11. Klarin, T. (2018) *The Concept of Sustainable Development: From its Beginning to the Contemporary Issues*, Zagreb International Review of Economics & Business, 21(1), p. 67–94, https://doi.org/10.2478/zireb-2018-0005

12. Kraljević, I., Afrić Rakitovac, K. (2021) *Promicanje ekološke osviještenosti projektom „Zelena knjižnica" Društva bibliotekara Istre*, Vjesnik bibliotekara Hrvatske, 64(2), p. 399–423, Available at: https://izdanja.hkdrustvo.hr/casopisi/vbh/article/view/835/756 (Accessed: 2024. 05. 05.)

13. Kurbanoğlu, S., Boustany, J. (2014) *From green libraries to green information literacy*, In: Kurbanoğlu, S., et al. (eds.), Information Literacy. Lifelong Learning and Digital Citizenship in the 21st Century, ECIL 2014, Communications in Computer and Information Science, Springer, Cham. https://doi.org/10.1007/978-3-319-14136-7_6

14. Loach, K., Rowley, J. (2022) *Cultural sustainability: A perspective from independent libraries in the United Kingdom and the United States*, Journal of Librarianship and Information Science, 54(1), p. 80–94, https://doi.org/10.1177/0961000621992824

15. Loach, K., Rowley, J., Griffiths, J. (2017) *Cultural sustainability as a strategy for the survival of museums and libraries*, International journal of cultural policy, 23(2), p. 186–198, https://doi.org/10.1080/10286632.2016.1184657

16. Mathiasson, M. H., Jochumsen, H. (2022) *Libraries, sustainability and sustainable development: a review of the research literature*, Journal of Documentation, 78(6), p. 1278–1304, https://doi.org/10.1108/JD-11-2021-0226

17. McInnes, S. (2009) *Strategic plans and national libraries: Planning within a changing context*, Alexandria, 21(3), p. 41–54, https://doi.org/10.7227/ALX.21.3.5

18. Missingham, R. (2021) *A new lens for evaluation: Assessing academic libraries using the UN Sustainable Development Goals*, Journal of Library Administration, 6(3), p. 386–401, https://doi.org/10.1080/01930826.2021.1883376

19. Mumelaš, D., Klemar Bubić, B. (2024) *Istraživanje o održivim navikama djelatnika knjižnica*, Vjesnik bibliotekara Hrvatske, 67(1), p. 39–63, https://doi.org/10.30754/vbh.67.1.1180

20. Panda, S., Das, S. K. (2022) *Role of public libraries in promoting social sustainability for the united nations sustainable development goals (SDG): an exploratory study*, Library Waves, 8(2), p. 129–138.

21. Peacemaker, B., Robinson, S., Hurst, E.J. (2016) *Connecting best practices in public relations to social media strategies for academic libraries*, College & Undergraduate Libraries, 23(1), p. 101–108, https://doi.org/10.1080/10691316.2016.1134244

22. Rowley, J. (2006) *Libraries and environmental management*, Library management, 27(4/5), p. 269–279.

23. Scott, R. (2011) *The Role of Public Libraries in Community Building*, Public Library Quarterly, 30(3), p. 191–227, https://doi.org/10.1080/01616846.2011.599283

24. Singh, P., Mishra, R. (2019) *Environmental sustainability in libraries through green practices/services*, Library Philosophy and Practice, Available at: https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=5727&context=libphilprac (Accessed: 2024. 05. 05.)

25. Ungebu, M. C., Immaculata, O., Emuchay, B. N. (2023) *Information literacy and sustainable development goals implementation: The role of libraries and librarians*, International Journal of Social Science and Education Research Studies, 3(1), p. 1017–112, https://doi.org/10.55677/ijssers/V03I1Y2023-13

26. United Nations (2015) *Sustainable Development Goals*, Available at: http://www.un.org/sustainabledevelopment/sustainable-development-goals (Accessed: 2024. 05. 05.)

List of strategic plans of national libraries

1. Austrian National Library (s.a.) *2023-2027 Strategische Ziele*, [online], Avaliable at: https://www.onb.ac.at/fileadmin/content/onb-dateien/1_Sitemap/Ueber_Uns/Strategiebroschuere_web.pdf (Accessed: 02. 04. 2024.)

2. German National Library (s.a.) *2025 Strategic Compass*, [online], Avaliable at: https://d-nb.info/1112299556/34 (Accessed: 2024. 05. 05.)

3. Krištofová, K. (2012) *Koncepcia ďalšieho rozvoja koncepcia Slovenskej národnej knižnice*, Knižnica, 11/12, 3-9. Avaliable online: https://www.snk.sk/images/snk/casopis_kniznica/2012/november_december/03.pdf (Accessed: 02. 04. 2024.)

4. Martynas Mažvydas National Library of Lithuania (2021) *Strategic Orientations and Priorities 2021-2023*, [online], Avaliable at: https://drive.google.com/file/d/1oN7o-SZi1cYb4FSRVx5d1tDRYBKuAbnF/view (Accessed: 2024. 05. 15.)

5. National and University Library in Zagreb (2021) *Strategija razvoja Nacionalne i sveučilišne knjižnice u Zagrebu do 2026. godine*, [online], Avaliable at: https://nsk.hr/wp-content/uploads/2023/09/Strategija-razvoja-NSK-do-2026.pdf (Accessed: 2024. 04. 02.)

6. National and University Library of Slovenia (2019) *Strateški plan NUK-a za razdoblje 2020.-2024*, [online], Avaliable at: https://www.nuk.uni-lj.si/sites/default/files/dokumenti/2020/NUK_StrateskiNacrt_2020-2024.pdf (Accessed: 2024. 05. 16.)

7. National Library of Estonia (s.a.) *Strategy of the National Library of Estonia for 2022-2025*, [online], Avaliable at: https://www.rara.ee/wp-content/uploads/National-Library-of-Estonia_Strategy-for-2021-2025.pdf (Accessed: 2024. 05. 22.)

8. National Library of Finland (2020) *Strategic plan of the National library of Finland 2021–2030*, [online], Avaliable at: https://www.doria.fi/bitstream/handle/10024/177161/Kansalliskirjaston_strategia_2021-2030_en.pdf?sequence=1&isAllowed=y (Accessed: 2024. 04. 03.)

9. National Library of France (2022) *Contrat d'objectifs & de performance 2022 – 2026*, [online], Avaliable at: https://www.bnf.fr/sites/default/files/2022-12/BnF_contrat_objectifs_performance_2022_2026.pdf (Accessed: 2024.05.05)

10. National Library of Ireland (s.a.) *Strategy 2022-2026*, [online], Avaliable at: https://www.nli.ie/sites/default/files/2022-11/nlistrategyenglishweb2022.pdf (Accessed: 2024.05.06)

11. National Library of Latvia (s.a.) *Development and Operational Strategy of the National Library of Latvia 2024 – 2028*, [online], Avaliable at: https://www.lnb.lv/en/about-us/ (Accessed: 2024. 05. 15.)

12. National Library of Luxembourg (2022) *Vision 2030 La BnL en voie de transformation*, [online], Avaliable at: https://bnl.public.lu/en/a-la-une/publications/presentation-bnl/vision-2030.html (Accessed: 2024. 05. 15.)

13. National Library of Malta (2011) *Malta libraries act*, [online], Avaliable at: https://maltalibraries.gov.mt/iguana/uploads/file/Documents/EN%20-%20Malta-Libraries-Act-2011.pdf (Accessed 2024. 05. 15.)

14. National Library of Portugal (2024) *Biblioteca Nacional De Portugal Visão E Plano Estratégico 2024-2026*, [online], Avaliable at: https://www.bnportugal.gov.pt/images/stories/sobre_a_bnp/documentos/2024/BNP_DOC%20ESTRT__2024-2026.pdf (Accessed: 2024. 05. 15.)

15. National Library of Spain (s.a.) *Biblioteca Nacional De España Plan Estratégico 2021–2025*, [online], Avaliable at: https://www.bne.es/sites/default/files/repositorio-archivos/2021-plan-estrategico-bne%5B1%5D.pdf (Accessed: 2024. 05. 16.)

16. National Library of Sweden (2022) *Strategi för ett starkt biblioteksväsende 2022–2025*, [online], Avaliable at: https://www.kb.se/download/18.2dd50321183eebadf40832/1666677483654/strategi-for-ett-starkt-biblioteksvasen-de-20222025.pdf (Accessed: 2024. 05. 15.)

17. National Library of the Czech Republic (2024) *We're Creating a Library. The National Library! Together! The National Library of the Czech Republic Development Strategy for 2024–2027*, [online], Avaliable at: https://www.en.nkp.cz/files/other/nl_strategy2024.pdf (Accessed: 2024. 04. 02.)

18. National Library of the Netherlands (s.a.) *Policy plan 2023 – 2026 : Words connect people*, [online], Avaliable at: https://www.kb.nl/sites/default/files/documents/tg_-_kb_beleidsplan2326_en_v3_11072023.pdf (Accessed: 2024. 05. 15.)

19. National Széchényi Library (2009) *Az Országos Széchényi Könyvtár Fenntarthatósági Terve*, [online], Avaliable at: https://www.oszk.hu/sites/default/files/Fenntarthatosagi_terv.pdf (Accessed: 2024. 05. 05.)

20. Royal Danish Library (2024) *Vi viser vej til viden Strategi 2024-2027 Det Kgl. Bibliotek*, [online], Avaliable at: https://www.kb.dk/om-os/opgaver-og-maal/strategi (Accessed: 2024. 04. 02.)

21. Royal Library of Belgium (2022) *Plan d'action 2022 – 2024*, [online], Avaliable at: https://www.kbr.be/wp-content/uploads/2022/03/KBR_Plan-action_22_24_FR.pdf (Accessed: 2024. 04. 03.)

22. SS. Cyril and Methodius National Library (s.a.) *СТРАТЕГИЯ ЗА РАЗВИТИЕ НА НАЦИОНАЛНА БИБЛИОТЕКА „СВ. СВ. КИРИЛ И МЕТОДИЙ" 2022–2026*, [online], Avaliable at: https://www.nationallibrary.bg/www/wp-content/uploads/2022/03/СТРАТЕГИЯ-2022.pdf (Accessed: 2024. 04. 02.)