Librarianship in Europe – mapping professional needs

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List of abbreviations

Abbreviation	Definition
ACT	Territorial Cohesion Agency (IT)
AIB	Associazione Italiana Biblioteche - Italian Library Association
BA	Bachelor of Arts
BES	Measurement of Well-Being (IT)
BLIA	Bulgarian Library and Information Association
CEDEFOP	European Centre for the Development of Vocational Training
CEN	European Committee for Standardization
COVID	Corona Virus Disease
CPDWL	Continuing Professional Development and Workplace Learning
CUBI,	Culture Libraries on the Net (IT)
DAISSy	Dynamic Ambient Intelligent Social Systems
DG	Directorate General
EC	European Commission
ECVET	European Credit System for Vocational Education and Training
EEA	European Economic Area
EOPPEP	National Organisation for Certification of Qualifications & Vocational Guidance (EL)
EQF	European Qualifications Framework
ESCO	European Skills, Competences, Qualifications and Occupations
ESF	European Social Fund
EU	European Union
FOREM	Service public de l'emploi et de la formation pour la Région wallonne (BE)
GAK	General Archives of the State (EL)
GDPR	General Data Protection Regulation
GLBF	Global Libraries Bulgaria Foundation
HEAL LINK	Hellenic Academic Libraries Link
HOU	Hellenic Open University
HRDOP	Human Resources Development Operational Programme
ICCU	Istituto Centrale per il Catalogo Unico
ICT	Information and Communications Technology
IFLA	International Federation of Library Associations and Institutions
ILO	International Labour Organisation
ISCED	International Standard Classification of Education

ISCO	International Standard Classification of Occupations
ISO	International Organization for Standardization
ISOB	Innovation and Organisational Development for Public Libraries, University of Milano-Bicocca (IT)
ISTAT	Italian National Institute of Statistics
KISC	Kultūras Informācijas Sistēmu Centrs - Cultural Information Systems Center
KPI	Key Performance Indicators
LIBER	Ligue des Bibliothèques Européennes de Recherche
LIS	Library and Information Sciences
LOU	Learning Outcome Units
LPVET	List of professions for vocational education and training
MA	Master of Arts
MIBACT	Ministry of Cultural Heritage and Activities and Tourism (IT)
MLSP	Ministry of Labour and Social Policy (BG)
MOOC	Massive Open Online Course
MS	Microsoft Office Suite
NAVET	National Agency for Vocational Education and Training
NCOP	National Classification of Occupations and Positions in the Republic of Bulgaria
NLG	National Library of Greece
NLL	National Library of Latvia
NPO	Non-Profit Organisation
NUVAP	Evaluation and Analysis Unit for Council Presidency Programming
PAC	Public Access Computer
PL2030	Public Libraries 2030
RSS	RDF Site Summary
RTA	Rezekne Academy of Technologies (LV)
SDG	Sustainable Development Goal
SEO	Search Engine Optimization
SER	State Educational Requirements
SES	State Educational Standards
UDC	Universal Decimal Classification
UK	United Kingdom
ULB	Université Libre de Bruxelles (BE)
ULSIT	University of Library Studies and Information Technologies (BG)
UNESCO	United Nations Educational, Scientific and Cultural Organisation

UNI	Ente Nazionale Italiano di Unificazione
VDAB	Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding (BE)
VET	Vocational Education and Training
VETA	Vocational Education and Training Act
VR	Virtual Reality
VTC	Vocational Training Centres
VUB	Vrije Universiteit Brusesls (BE)
VVBAD	Vlaamse Vereniging voor Bibliotheek, Archief & Doumentatie vzw Association (BE)

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Executive summary

The BIBLIO project aims to identify the skills gap in the Belgian, Bulgarian, Greek, Italian, and Latvian library sector resulting from the digital transformation, develop a VET curriculum in response to emerging job profiles, and pilot a MOOC as well as specialised training. The BIBLIO research activities aimed to identify the training needs in the European library sector in terms of digital and transversal competences to help the sector transition into the digital era and capitalise on the technologies that are available today to improve existing services and develop new ones. A holistic approach to capture different perspectives combining qualitative and quantitative methodologies was used throughout the research activities.

The consortium has mainly focused on public libraries as these were more relevant to the partners, however, if insights could be gathered from other types of libraries, these were included in the results of this report. The work package carried out four distinct activities: desk research, a training needs survey, in-depth interviews with library professionals, and best practice interviews with VET providers. Each section of the report examines the national results and draws up a comparative analysis. Finally, two emerging job profiles are suggested at the end of the report based on the research results to inform the VET curriculum development and the specialised training.

Desk research

The initial skills gap emerging from this activity varies across the partner countries. Bulgarian librarians are keen to learn digital skills and indicated a low starting level. On the other hand, the digital skills requirements in Italy, Latvia, Belgium, and Greece indicate that a basic level is expected with the possibility of upskilling depending on the non-formal training opportunities available. The pre-existing research across the consortium points to a **need for pedagogical skills in libraries** as they are expected to carry out educational activities for their users. This skill set should be **accompanied with user needs analysis** skills as librarians are customer-facing professionals and need to be able to identify their users' needs, anticipate these, and respond in a timely manner.

Survey

The training needs survey addressed to library professionals highlighted three areas of weakness in DigComp 2.1 areas of competence: **safety, digital content creation, and problem solving**. This is based on the self-evaluation survey respondents were asked to provide. Individual areas of competence may be more important depending on specific job roles; however, library professionals should at least have an intermediate level of proficiency in all DigComp 2.1 areas of competence.

The library professionals who responded to the survey in general seemed motivated and aware of the need to refresh their skills and identified various training needs to fulfil their duties:

- Online and offline communication
- Communication and interaction with users
- Knowing how to create digital content
- Exploring technological changes
- Upskilling in information, data, and media literacy
- Community assessment and facilitation

In-depth interviews

Overall, the interviewees felt that **upskilling was necessary throughout a library professional's career** to stay up to date with technological changes and have relevant knowledge. Several respondents noted that librarians may feel confident in their media literacy abilities, however, they must regularly partake in training to have knowledge and skills relevant to the information environment. Many respondents noted an issue with the lack of digital skills in libraries as there is a reliance on one or two staff members with the relevant skills. Therefore, **establishing a strong foundation in basic digital skills for work for all staff members is needed** to ensure a level of digital autonomy in library professionals. Notably some respondents felt that librarians need to be pushed to participate in non-conventional training.

However, a key issue remains in the project countries; **librarianship is still partially seen as inherently tied to the collections a library possesses**.

VET best practice interviews

All the best practice interviews carried out address various areas of digital competence. In general, there is an acknowledgement that **library services need to be more digital-oriented** and **library professionals need to be able to leverage digital tools to serve their communities**. Interestingly, in Latvia, libraries are seen as "digital agents" that can reach a wide segment of the population and thus should be considered for citizen upskilling initiatives. This type of approach stands out amongst all the best practices as this intends to equip library professionals with up-to-date knowledge about e-services and make them an access point for digitally excluded library users.

Based on these best practice interviews, there is a **high need for blended learning opportunities** to allow learners to balance professional and personal commitments. In light of the COVID-19 pandemic, programmes with online components were able to continue the delivery of at least theoretical modules with the possibility of convening learners at a later time. Only a few of the best practices identified had online-only formats and many included some practical activities as part of their curriculum. Thus, as the BIBLIO VET curriculum will involve practical activities, a blended format that aims to deliver theoretical aspects online and bring learners together for in-person practical activities seems to be the best format. Several interviewees from different countries pointed out that they felt **the collaborative and supportive environment they fostered provided a good opportunity for learners to learn from each other and create a support network between libraries**. The learning experience delivered by BIBLIO should encourage a similar collaborative approach to foster an inter-European community that can also exchange best practices from each country.

Job profiles

Two distinct job profiles have been developed based on the results of the research activities caried out: **Community Engagement and Communication Officer** and **Digital Transformation Facilitator**. Throughout the research activities, library professionals indicated a need for communication skills, community engagement, and digital skills for work. The emerging job profiles detailed in this report collated the information from the research to create two profiles that respond to the key skills needs and training needs identified in the research namely responding to the communication and the community facilitation training needs for the former and the digitisation and technical support needed for the latter. They aim to boost digital skills in all library professionals to at least an "intermediate" level across all DigComp 2.1 areas. By enhancing digital and transversal skills that library professionals

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have, this will help the sector transition into the digital era and understand how to respond to new developments as technology continues to develop.

The research carried out in the BIBLIO project delves into the skills needs of library professionals as a result of the digital transformation. This project opens the field to further research and developments in how digital technologies can be integrated in librarianship and the emerging skills needs around that.

Librarianship in Europe – state of play

I. Introduction

Librarianship is not a regulated profession at the EU level and therefore formal qualifications are not subject to EU regulation either. Thus, it is difficult to assess the impact that the digital transformation has had on the European library sector in terms of work realities and changes to formal qualifications. Preliminary research has shown that the library sector is challenged by technological innovations as access to information is more readily available than ever before. In response to this, libraries have adapted and adopted new means of enabling access to information to their users. However, this does not mean that library professionals have the skills required to manipulate these new means nor do they have training opportunities to acquire the skills needed. The BIBLIO project aims to identify training needs as a consequence of the digital transformation and to design a VET curriculum for librarians. At the start of this research work package, partners agreed to focus on public libraries during the research activities given the composition of the consortium. However, if insights from other types of libraries were relevant to the project, these were included to widen the perspective. To achieve this, this report first examines EU data and research touching on the EU understanding of librarianship. We then look at the library sector in each partner country to establish the professional expectations and regulations of a librarian in each partner country as well as the training opportunities and job vacancies available.

A training needs survey targeting librarians in all partner countries has been conducted to allow librarians to indicate which skills they would like to be trained in. Insights from this survey will be discussed in this report. In-depth interviews with library professionals, education providers, library users have also been conducted to understand the development of digital services in libraries. The data collected from these interviews will also be discussed in this report. Finally, we have conducted interviews with best-practice VET providers to understand which elements enable a successful completion of training opportunities as well as elements likely to cause a hindrance to participants. As a result of this research, we suggest two new job profiles reflecting the insights gathered throughout the research process that are relevant to the partner countries.

While this profession is not regulated at the EU level, several tools have been put into place by the EU to map specific aspects of librarianship. Notably, the EU "Regulated professions database" mandated by Directive 2005/36/EC collects the data provided by EU Member States, EEA countries, the UK, and Switzerland. The EU has also established the European Skills, Competences, Qualifications, and Occupations (ESCO) framework as a taxonomy between the labour market and the skills, qualifications and competences needed. As such, these two EU tools reveal the perception of librarianship and the responsibilities held by staff in libraries at the EU level and will serve as an initial point of analysis into the skills mismatch in the library sector.

II. Database of regulated professions

The title of librarian (or any library-related occupation) is not regulated at the EU level, allowing EU Member States, EEA countries, the UK, and Switzerland to set country-specific regulations. The database of regulated professions (as of 09/03/2020) has data from Croatia, Hungary, Iceland, Slovakia, Slovenian and the United Kingdom (see Annex 1).

The description of the activities, when provided, can be broken down into 6 broad competences:

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- Information and collection management
- User education management
- User management
- Library management
- Digital document/archive management
- Event management.

The competence appearing most frequently in this data set is information and collection management followed closely by digital document/archive management and user management. Notably, the tasks under user management are broadly described as "providing information to users" and "notify[ing] users of existing services in the library and beyond, including a web environment". However, the tasks pertaining to collection management - including digital collection management - are described extensively. While collection management is a multidimensional competence requiring various skills, the preponderance of this competence in the professional descriptions provided in the regulated professions database indicates a strong leaning towards collection and information management as the key role of library staff rather than user-based interactions.

III. ESCO

Occupations

ESCO bases itself on the International Standard Classification of Occupations (ISCO) developed by the International Labour Organization (ILO). The profiles ESCO produces for occupations are mapped to specific ISCO-08 codes and start from level 5 or lower as the ISCO-08 classifications are organised according to 4 levels. 8 library-related occupational profiles can be found in ESCO (see Annex 2 for ESCO occupational profiles).

The library-related profiles identified in ESCO fall under the following categories:

- Legal, social and cultural professionals under the title "Librarians and related information professionals" (category 2622)
- Artistic, cultural and culinary associate professionals under the title "Gallery, museum and library technicians" (category 3433)
- Professional services managers not elsewhere classified under the title "library manager" (category 1349)
- Office, accounting and support clerks under the title "library clerk" (category 4411)

These categories provide an overview of the various roles mapped out in ESCO concerning library-related work. Seniority (e.g.: a library manager) impacts whether a role is considered an associate professional, professional, or a technical manager. Despite these hierarchical differences, information and collection management is a key competence in all profiles. A digital component is taken into consideration as some profiles list "digital collection management" as one of the competences required for the title. Thus, to a certain extent, digitisation and digital library management has been integrated as a library-related competence across Europe which should be reflected in the national profiles in the next section of this report.

The notion of assisting users in finding library materials and information comes up in the categories of "library and related information professionals" specifically in the "librarian" job profile and in the

"library clerk" profile. We can observe that accompanying users in the search for information - whether in physical format at the library or helping users acquire the skills to find information on their own - is still a responsibility to this day for modern-day librarians. Thus, customer service skills and pedagogical skills would be needed to fulfil these responsibilities.

Qualifications

As the title of librarian is not regulated at the EU level, no specific European qualification exists in relation to librarianship. Rather, each EU Member State has its own qualifications for this profession. The ESCO portal managed by the European Commission lists qualifications from Greece, Hungary, Latvia, Poland, Portugal, and Slovenia (see Annex 3 for an overview of the qualifications listed on ESCO).

The library-related qualifications collected on ESCO range from EQF level 4 to 8 indicating various pathways for someone to become a library professional. While distinctions may exist at a national level between the jobs these qualifications lead to, they globally tend to train for the role of a "librarian". The qualifications collected on ESCO vary from overtly library-oriented courses to broader courses that can be applied within the library field. Those slightly more general tend to provide more training in ICT technologies in the cultural sector. For instance, Hungary's qualifications for a "Librarian and Information Scientist" focus heavily on digital skills outside of the library sector, similar to Greece's "Bachelor's Degree in Cultural Technology and Communication".

For the more library-oriented qualifications, library science, collection management, and an understanding of digitisation is commonplace. Several qualifications also touch on the provision of lifelong learning for library patrons suggesting that pedagogy is an important competence for library professionals to possess. Based on this qualification list, those undertaking a library-oriented course will have the traditional skill set of a librarian which centres around collection management, library and information science. Over the course of their qualification, they may acquire digital skills pertaining to digitisation and other library management systems but without an understanding of how other technological innovations can be employed in the library sector.

IV. CEDEFOP

As explained in the previous section, library-related professions fit under different ISCO/ESCO categories depending on their seniority. We will apply the same categories to analyse CEDEFOP data and research. While this data set is broad and covers professions outside of the library sector, insight into EU trends for employment and opportunities emerge from this data and can supplement our understanding of the new skill sets librarians will need for the future.

Legal, social and cultural associate professionals and professionals

In 2014, CEDEFOP published a briefing on prospects for legal, social and cultural associate professionals. An optimistic outlook on employment within the sector was predicted at that point however, a specific skills challenge was already observed then[1]. As technology developed, CEDEFOP projected that communications, diagnostic, and production and design would be impacted by new software. Nonetheless, the skills requirements for the legal, cultural and social associate professionals centred around non-technology driven skills such as: management and administration, customer and

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[1] EU Skills Panorama (2014) Legal, social and cultural associate professionals Analytical Highlight

personal service, understanding of legal and regulatory framework, literacy and listening skills, numeracy skills, and monitoring.

The 2019 update on the skills opportunities and challenges for this category projects an employment growth of around 29% from 2018 to 2030 with the employment of associate professionals increasing by 42% and 17% for professionals[2]. While this estimate is based on low sample numbers and caution has to be exercised when analysing this data, this represents a significant area for the sector.

The key tasks and skills within occupations in this sector are: creativity, resolution, autonomy, gathering and evaluating information. It is expected that automation and digitisation will impact the sector significantly and shape a demand for related skills. While CEDEFOP estimates that the risk of automation is relatively low in the legal, social and cultural sector, it notes that the occupations exposed to the risk of automation are those with routine, non-autonomous tasks that do not rely on communication, collaboration, critical thinking and customer-service skills. Furthermore, employees with little to no access to professional training that could help cope with labour market changes are more at risk of seeing their professions be automated.

Technical managers

Under ISCO and ESCO, library managers can be classified as technical managers due to the difference in their roles compared to librarians. The projection for technical managers focuses on changing technologies and workforce demographics[3]. As younger generations enter the workforce and are used to communicating in a specific way, technical managers will have to balance this with the older workforce. Once more, as technology progresses, managers will have to acquire technology-related skills to understand how these new technologies can be applied in their field and how to use these efficiently. However, unlike associate professionals and professionals their skill set is focused on management whether it is team management or more general management.

Office, accounting and support clerks

To a certain extent, some library professionals can be considered to be support clerks due to the administrative work they undertake (although ISCO and ESCO refer to these roles as library clerks rather than librarians). On the whole, CEDEFOP expects a decrease in employment for this sector which could force the library sector to incorporate administrative tasks into the role of librarians[4]. The most important tasks and skills for this category is: using ICT, being autonomous and gathering and evaluating information. As with the two other categories librarians can fall under, this category is also expected to be strongly impacted by digitisation and technological changes. However, it is expected

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[2] EU Skills Panorama (2019a), Legal, social and cultural professionals and associate professionals: skills opportunities and challenges (2019 Update) [online] Available at:
<https://skillspanorama.cedefop.europa.eu/en/analytical_highlights/legal-social-and-cultural-professionals-and-associate-professionals-skills-0#_references> [Accessed 31 March 2020].
[3] EU Skills Panorama (2019c), Technical managers: skills opportunities and challenges (2019 update) [online] Available at: <https://skillspanorama.cedefop.europa.eu/en/analytical_highlights/technical-managers-skills-opportunities-and-challenges-2019-update#_which_drivers_of_change_will_affect_their_skills_>
[4] EU Skills Panorama (2019b) Office, accounting and support clerks: skills opportunities and challenges (2019 update) [online] Available at: <https://skillspanorama.cedefop.europa.eu/en/analytical_highlights/office-accounting-and-support-clerks-skills-opportunities-and-challenges-2019#_what_are_the_trends_for_the_future_____2>

that technological advancements will have a deskilling effect on workers while simultaneously requiring clerks to take on higher functions[5].

Based on CEDEFOP research, the library sector is likely to see an overhaul in terms of not only how it conducts its activities but also the activities it undertakes. As technological advancements can push for the automation of routine, non-autonomous tasks, librarians will have to adapt and acquire new skills to maintain the technology present in their libraries and ensure their users are equipped with the skills needed in the search for information.

V. Librarianship in European countries which are digitisation leaders

Librarianship in several European countries indicates how the digital transformation can impact activities and be incorporated within core activities. While there are many outstanding libraries across Europe, this report will focus on librarianship in Finland, Denmark, and the Netherlands as they have each undertaken approaches at a national level which have changed how librarianship is done.

Finland

According to the IFLA CPDWL Satellite meeting "Digital Skills in Finnish Public Libraries to Engage in the National Operating Model for Digital Support for Citizens" paper, Finland's adoption of digitised public services created an opportunity for libraries to become a support service to these[6]. It is worth noting that Finnish libraries have been providing support for their patrons' digital questions for many years in ad-hoc ways despite having dedicated digital support events[7]. As these interactions would occur during customer service instances, it is crucial that all front-facing library staff have the digital skills needed to provide support to patrons.

Based on a survey conducted by Turku City Library, older library staff as well as those with a vocational degree tended to use fewer digital tools and evaluate their digital skills as lower than younger colleagues and those with bachelor's and master's degrees[8]. An action plan was devised to upskill all Finnish public library employees to ensure they would be able to provide digital assistance for their library's services by the end of 2020 which includes "e-materials, digital services, using devices, information seeking, online security, and digital problem solving"[9]. This approach integrates digital knowledge into Finnish librarianship and ensures they will be able to apply this in a user-centric approach.

Denmark

Following on from a 2007 reform of the Danish municipalities, the model applied to public libraries fundamentally changed. The reform decreased the number of municipalities from 275 to 98 in Denmark leading to the closing of 131 of Denmark's 638 public libraries. The Danish Ministry of Culture was called on to find a solution to these closings leading to the creation of the Committee on the Public Libraries in the Knowledge Society. Their role was to evaluate the role of libraries and

[5] ibid
[6] Ojaranta, A. and Litmanen-Peitsala, P., 2019. Digital Skills In Finnish Public Libraries To Engage In The National Operating Model For Digital Support For Citizens. [ebook] Zagreb: IFLA. Available at: <http://library.ifla.org/2671/1/s05-2019-ojaranta-en.pdf> [Accessed 31 March 2020].
[7] Ibid, 3
[8] ibid
[9] Ibid, 4

develop the traditional missions of libraries and study the evolution of the digital landscape. This context led to the development of the "Four spaces model" which is used to this day in Danish public libraries[10].

This model intends to address the challenges libraries are facing in a knowledge-based experience society and highlight the libraries' potential to meet new or changing user needs[11]. The model acknowledges and embodies the aims of the public library which are acknowledgement/experience, empowerment, involvement and innovation. While the model outlines these missions, it is intended to lead to discussion and encourage diversity not as a template that should be applied in every library. As such, the four spaces are:

- The Inspiration Space which should stimulate meaningful experiences
- The Meeting Space which should provide an open, public space to meet like-minded people and those who are not as a way to personally develop and grow
- The Learning Space where children, young people, and adults can discover and explore the world and enhance their skills as they have access to knowledge and information
- The Performative Space which reflects the transition from collection to creation in public libraries. This space gives users access to tools and materials and, if possible, artists, designers, multimedia developers which support their creative activities.

Formal training provisions in Denmark emphasise a skill set that diverges from the traditional librarian skill set we have seen in ESCO profiles. The courses offered at the University of Copenhagen's Bachelor of Information Studies focus on problem solving and design, innovation, and digital culture and digital cultural heritage[12]. This is supplemented with the teaching methods employed in this qualification as students are expected to work together to solve problems and interact with various pedagogical methods. Thus, the focus is less on collection management and documentary research and more on collaboration and design thinking. The follow-up degree offered by the University of Copenhagen is a Master of Science in Information Science and Cultural Communication. This degree has a course titled "Knowledge Organization" which would imply a type of documentary and/or collection management, however, the rest of courses focus on cultural studies, user studies and mediation spaces or academic communication and science studies with electives in the second year[13]. Similarly to the Bachelor's degree, this course emphasises understanding users as a primary

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[10]Ravedoni, M., 2018. *Four Spaces Model*. [online] Michael.ravedoni.com. Available at: <https://michael.ravedoni.com/en/publications/2018-tb-bibliotheque-plateforme/05-02-four-spaces-model/> [Accessed 17 August 2020].

[11] Jochumsen, H., 2020. *The Four-Space Model*. [online] Modelprogrammer.slks.dk. Available at: <https://modelprogrammer.slks.dk/en/challenges/zones-and-spaces/the-four-space-model-by-henrik-jochumsen/> [Accessed 17 August 2020].

[12] Studier.ku.dk. Undervisning Og Opbygning – Københavns Universitet. [online] Available at: <https://studier.ku.dk/bachelor/informationsstudier/undervisning-og-opbygning/> [Accessed 31 March 2020].

[13] Studies.ku.dk. Programme Structure - Msc In Information Science And Cultural Communication – University Of Copenhagen. [online] Available at: <https://studies.ku.dk/masters/information-science-and-cultural-communication/programme-structure/> [Accessed 31 March 2020].

competence to acquire rather than focusing on collection development/management and information management which have traditionally been the skill sets linked to librarians.

The Netherlands

As a case study, the Netherlands presents a similar approach to that of Finland. The library policy in the Netherlands has progressively evolved to accommodate changes within the library and information sector.

Public libraries in the Netherlands faced a challenge with an increase in access to information online as well as a decreasing interest in reading. The Public Library Act of 2015 granted public libraries more flexibility with the activities they ran while still creating a general framework of activities libraries had to provide. Thus, reading and literacy promotion is still a vital activity in Dutch public libraries and they undertake activities in partnership with other organisations (e.g.: schools). While the question around the existence of libraries still persists especially with information readily available online, libraries have positioned themselves as actors of media literacy and democracy and support their users acquire the digital skills needed in their search for information[14]. Dutch libraries have also carved out a significant role in the adult education sector following the decentralisation of the library system[15]. These activities target vulnerable groups and cover a myriad of topics and are often organised in partnership with social organisations. Thus, the role of libraries in the Netherlands has been widened to encompass activities outside of the cultural field. Additionally, many libraries follow the *Kulturhus* model which can be observed in many Nordic countries wherein libraries share their building with other services. To a certain extent, this has facilitated collaboration when organising different activities.

Comparative analysis results

While librarianship in Europe is not regulated as a profession and therefore does not have a standard qualification nor job description, there is a general overview across the EU that librarians play a key role in accessing information and understanding how to access information. As briefly explored in some of our European case studies, libraries play an increasingly important role in equipping their users with the basic digital skills needed in their lives for work and everyday tasks. Furthermore, they often reach key target groups such as adult learners and are therefore important actors in citizen upskilling initiatives. The focus on equipping users with the skills to access and critically evaluate information marks a departure from the traditional skill set of librarians. Rather than being cataloguers and collection managers, librarians now need to be more open to being public-facing and socially-oriented as a key part of their profession. This requires upskilling and reskilling librarians in both digital and transversal competences so that they are able to meet the new challenges presented by a changing information landscape.

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[14] Huysmans, F. and Oomes, M., 2018. The People's Palaces: Public Libraries in the Information Society. In: E. van Meerkerk and Q. van den Hoogen, ed., Cultural Policy in the Polder: 25 Years of the Dutch Cultural Policy Act. [online] Amsterdam University Press. Available at: <https://pure.uva.nl/ws/files/29129451/181006_Huysmans_Oomes_Peoples_Palaces_authorversion.pdf> [Accessed 31 March 2020].
[15] ibid

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To a certain extent, the case studies analysed indicate that this departure from traditional librarianship is occurring at various levels. In Finland and the Netherlands, governments recognized opportunities for public libraries to support their communities in different ways and created action plans or legislation to push for a new role for public libraries. Similarly to Finland, Denmark reassessed the role of public libraries and defined a new role and function for it. Additionally, Denmark's approach to training is community-oriented and encourages learners to develop collaborative and design thinking skills in response to this. Thus, this initial research suggests that the focus for public libraries should be to develop community-oriented services and have staff that understand how to respond to this.

Finally, CEDEFOP data suggests that automation may be risk only to routine tasks which would represent the shelving and checkout of material in most libraries. Some libraries have already begun using checkout kiosks and self-return machines for most if not all of their material leaving the shelving to possibly face the risk of automation in the near future. However, given the research that has been done already, libraries are naturally adapting to modern challenges especially around performative spaces for users (e.g.: makerspaces, fabrication laboratories etc) and providing support to various target groups on topics such as media literacy. Thus, the title of "librarian" has been moving to one focused on pedagogy and support to users more so than a purely collection-focused one as might be suggested from our perceptions.

National profiles

The BIBLIO consortium is made up of partners representing the library sector in Italy, Greece, Latvia, and Bulgaria with PL2030 as an EU-wide representative. As this project strives to design a VET curriculum fit for the library sector, understanding the library sector in each partner country is a first step in shaping the curriculum. The partners all performed desk research on their national contexts and created national profiles for their countries. As an EU representative, PL2030 researched the Belgian library sector.

Each partner focused on existing regulations, policies, and strategies in their country that impacted librarianship. This ranged from any legal texts defining the profession to provisions for VET courses in this field and the expectations to achieve the status of "librarian". Additionally, partners mapped out the formal and non-formal training opportunities available in the library sector which lead to the qualification as a "librarian" or are specifically targeted to librarians to establish a state-of-play for the sector. Finally, partners looked at the job vacancies available for the past three years, where possible, to map out the hiring tendencies and the expectations in the working field. These were compared to the skills and competences taught in formal and non-formal training opportunities.

I. Belgium

Regulatory framework, policies, and strategies

Wallonian regulations

In Wallonia, librarianship is regulated by the 14 March 1995 decree regarding the organisation of the public literacy service[16]. This law establishes the various categories of library staff in public libraries in Wallonia which includes technical staff (category B & C) and managerial staff (category A). This decree is supplemented with the 19 July 2011 decree by the government of the French-speaking community which establishes the qualifications required to be recognised as a librarian in Wallonia and Francophone libraries in Brussels[17]. The 2011 decree opened up the profession to those holding degrees in information and communication sciences and computer science. Previously, access to the profession was limited to those in possession of a formal qualification in library science. Regardless of qualifications held, a key task in Wallonian libraries is to promote literacy to readers which would require pedagogical skills as well as communication and needs assessment skills.

Flemish regulations

As of 2009, the Flemish Community has divided the library and information sector into two categories: librarians/information managers (K160101 - Informatie- en documentatiebeheer, 2014) and archivists (K160102 - Archiefbeheer, 2014). On the whole, these closely resemble each other with the notable difference between the profiles coming from a stronger documentary and research focus for archivists and making information and resources available to the public for librarians/information managers. Both profiles recognise that customer support is a key task as well as knowing how to

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[16] Arrêté du Gouvernement de la Communauté française relatif à l'organisation du service public de la lecture. 1995029329

[17] Arrêté du Gouvernement de la Communauté française portant application du décret du 30 avril 2009 relatif au développement des pratiques de lecture organisé par le Réseau public de la lecture et les bibliothèques publiques. 2011029482.

communicate with users and other stakeholders. In order to hold the title of librarian or archivist, a formal qualification specialised in library and information science is required.

Additionally, the Flemish Community legislated in 2013 the responsibilities of a managerial position in a library[18]. The primary focus is on strategic development and library management rather than collection development. Interestingly, the impact of the digital transformation is touched on. The decree recognizes that collection management tools have changed as a result of technological changes and patron services have also been impacted notably in terms of supporting patrons in their search for information. The speed at which libraries have to adapt to digital and technological changes depends greatly on the type of information they provide and whether it can be digitised as well as user demand.

Policies

Belgium has developed a five-year strategy aimed at achieving a state-of-the-art digital transformation. This strategy is made up of five priorities with the "Digital skills and jobs" priority being the most relevant to this project. Much like the European Commission's approach to digital skills and jobs, the Belgian approach aims to equip Belgian citizens with basic digital skills by 2020. Initiatives such as the "Digital Belgium Skills Fund" and "BeCentral" have been launched to promote digital skills, in particular coding. The target groups for both initiatives are relatively wide with the Digital Belgium Skills Fund targeting younger populations including socially vulnerable children, young people and young adults, and BeCentral targeting children, young people, and adults. Under both of these initiatives, coding is the primary activity taught pointing to a strong interest in computational thinking as a key competence of the future.

Another priority of the Digital Belgium strategy is the "Digital Government strand" which brings up the possibility of an open data portal of federal public data. The democratisation of data, especially in the open data format, will require training people in learning to access this data as well as manipulating it.

Wallonia has also developed a digital strategy closely linked to the Digital Belgium strategy. A key aspect of the Digital Wallonia strategy is the propagation of digital skills amongst Wallonians of all ages. An emphasis is placed on learning digital skills throughout life, ensuring that these stay up to date and leading the digital transformation with entrepreneurial skills[19]. The Digital Wallonia strategy includes specifically that digital citizenship is crucial to push the development of the Wallonian region. Part of the Digital Wallonia initiative has seen the creation of 170 public digital spaces across the region, of which some are in libraries[20]. The objective of these digital spaces is to provide users with the opportunity to discover technology and learn to use it through safe and moderated exchanges.

The Flemish community has an extensive cultural policy encompassing libraries as key cultural actors. The 06 July 2012 decree[21] discusses the creation of a digital library which would support Flemish

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[18] Arrêté du Gouvernement flamand portant agrément de la qualification professionnelle de « bibliothecaris/informatiemanager » (bibliothécaire/manager des informations). 2013203942.

[19] Delacharlerie, A., Compétences Numériques. [online] Digitalwallonia.be. Available at: <https://www.digitalwallonia.be/fr/strategie-numerique/competences-numeriques> [Accessed 30 March 2020].

[20] EPN Ressources. A Propos Des EPN. [online] Available at: <http://www.epndewallonie.be/a-propos-des-epn/> [Accessed 30 March 2020].

[21] Décret relatif à la Politique culturelle locale. 2012035982.

public libraries. This is treated as a separate entity to public libraries and aims to create a single digital offer for all public libraries in the Flemish Community. Thus, library professionals would be able to direct their users towards this digital library through various supports - mainly a website and an application - and offer a wide variety of e-resources. Public libraries are also part of a local cultural policy which sets out various objectives for them[22]:

- Stimulate cultural education and reading motivation
- Promotion of e-inclusion with a focus on increasing information and media literacy among hard-to-reach target groups
- An adapted service offer for disabled people and for hard-to-reach target groups in the cultural, educational and socio-economic field
- Cooperation between education institutions

The most recent Flemish policy now aims to have "supra-local" libraries[23]. This policy looks at the current and future needs of the profession, it has concluded that there is a need for technological, anthropological and socio-cultural profiles. Specific competences such as marketing research, communication, management are also highly sought out in the Flemish library sector. Furthermore, this "supra-local" library policy aims to place the library as an informal learning space for spontaneous learning[24]. In creating a space like this in a library, staff would require the competences to handle managing and running FabLab/Makerspace-type of initiative. The physical layout of the library is now crucial as it has to allow users to interact with each other. The "supra-local" library policy aims to have the library become a space that is designed for the people and by the people[25]. Thus, library professionals become knowledge-holders of their community and provide information on the community stakeholders which can support community initiatives and would need skills pertaining to this.

Training provisions in Belgium
Flanders

Formal training provisions

Legislation regulating formal training provisions exist in the Flemish Community focusing on qualifications at EQF level 4 for "library assistant/information brokers"[26] and "initiation to library, documentation and information science"[27]. These establish the modules that have to be taken as well as the competences which should be acquired along the training provisions. Qualifications under this level focus on:

- The library sector and library management
- Patron support including information accessibility

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[22] Sociaal-Cultureel Werk voor jeugd en volwassenen, 2013. Public Libraries In The Flemish Community. Vlaamse overheid.
[23] Department Cultuur, Jeugd & Media, 2018. Bovenlokaal Bibliotheekbeleid 2018-2020. Vlaanderen.
[24] Ibid
[25] Ibid
[26] Vlaanderen is onderwijs & vorming, 2018
[27] Vlaams Ministerie van Onderwijs en Vorming, 2010. Secundair Volwassenenonderwijs Studiegebied Bibliotheek-, Archief- En Documentatiekunde. Vlaanderen.

- Information science and documentation techniques
- Collection management
- Communication, public relations, and marketing
- Workplace learning

The next level of qualification in Flanders pertaining to library-related roles is an Associate's Degree (EQF level 5). These 2-year courses aim to equip their graduates with relevant up-to-date knowledge and skills that can directly translate into the workplace. The topics covered in these courses focus on:

- Information management - classification methods, collection development, conservation and destruction of archive
- Digital skills - office software, programming and mark-up languages, layout software, library software, data management software, digitisation/automation software
- Project management - managing projects focused on how information reaches target groups, communication and marketing, event management, user profiles
- Soft skills - communication, teamwork, conflict management
- Workplace learning

Formal qualifications move onto professional Bachelor degrees (EQF level 6). These courses are focused on information management more so than librarianship. Thus, the skills acquired are centred on digital product design, digital project management, and data management. This is a more general qualification that could translate into the library sector without being targeted at the library sector specifically.

Finally, a Master's degree (EQF level 7) is available at the VUB, a Flemish and English-speaking university in Brussels, training its students in archival studies. While this may not directly correlate to all libraries, the Flemish Community has a cultural policy which positions heritage libraries as the gatekeepers to cultural heritage in Flanders. As this is an academic degree, strong research skills are developed throughout and especially during the thesis write-up period. Workplace learning is mandatory in this course along with the thesis. The broad set of competences that would be acquired through this qualification would be:

- Archival management - archive law, "classical" archival or modern archival
- Information management - information systems, contemporary document management

Apart from the information management qualification, all other levels focus on collection management and information science as the focal point of their training. Notably, the qualifications at EQF levels 4 and 5 provide training in soft skills and office software intended to prepare their graduates with the skills relevant to the workforce in line with the competence framework developed by the Flemish Community. The focus across all these formal qualifications are on hard skills within libraries, collection management, information science, library management. The role of a librarian has customer service, whether through daily interactions or through events, as a key competence in the Flemish definition of a librarian. It is interesting that these formal qualifications do not provide formal training in user need analysis in a similar way to Denmark's qualifications despite having a policy focused on supra-local libraries.

Non-formal training provisions

The non-formal training offers in the Flanders region are much less extensive than those offered in Wallonia and are generally supplied by VVBAD – the Flemish library association – or CultuurConnect. Their training offers range from updating library staff on digital library services (the Flemish Community has a centralised digital library offer) to data and text mining, marketing, running makerspaces, meeting facilitation, and planning external communications. There is a component of digital upskilling in some of these as the focus is on understanding technological innovations and how they pertain to the library sector. Other training provisions aim to facilitate a better work environment and ensure smoother services. The focus overwhelmingly is on hard skills such as developing communication strategies, understanding data and text mining, exploring updates in the digital library services. These point to a need to acquire new knowledge and skills within the sector as well as need to be monitoring future technological innovations and exploring how these could fit into the sector. As the Flemish cultural policy aims to have supra-local libraries, it is interesting to note that offers focusing on design thinking and community assessment and facilitation do not feature prominently. While understanding innovations and their possible fits within the library sector is important and this is reflected in the training provisions, community assessment and facilitation should be a core competence if Flemish public libraries are to be supra-local entities.

Wallonia

Formal training provisions

As the librarian profession is quite heavily regulated in Wallonia, various types of qualifications exist at EQF levels 5 and 6. Qualifications at EQF level 5 have a strong focus of training students to integrate public libraries and often have several modules on how public libraries function and contemporary challenges public libraries face. Alongside this and both EQF level 5 and 6, participants are trained in library science, information management, and communications/PR. Thus, graduates of these programmes have the traditional skill set of librarians regarding library management and collection management with an added skill set around communications indicating that event management is crucial to libraries.

At the Master level (EQF level 7), a degree in information and communication science and technology is available at the ULB, a French-speaking university in Brussels. Workplace learning is part of this programme along with a research thesis. Thus, graduates will have strong research skills and some work experience upon completing this programme. The courses throughout this programme touch on:

- Database management - algorithms and programming, digital modelling, creation and management of databases
- Library science - library management (law, HR management), digital publishing, sociology of books
- Communication and marketing - conception and evaluation, digital communication strategies, digital communication
- Information management - societal impact on information, archival, data visualisation, cultural heritage conservation and digitisation, document science, architecture of information systems
- Linguistics

Accredited professional courses exist as a top-up training provision within the Wallonia-Brussels Federation. These are accredited by a university aimed at equipping participants with specialised

knowledge and skills. The two qualifications available range from digital information management and game science and techniques. As the names indicate one is focused on digital document management and preservation whereas the other aims to teach about game-based learning and curating experiences around this. These courses target different dimensions of the librarian profession and are interesting indications of training opportunities for library professionals.

Non-formal training provisions

A catalogue of non-formal training opportunities was available online and served as the main source of information on non-formal learning for library staff in Wallonia[28]. All of these training sessions are organised and provided by the reading and literacy promotion service in Belgium and are aimed at the library and cultural sector. Consequently, many of the training sessions targeting librarians focused on reading promotion for target groups such as adults, young children, and youths. The focus in these was primarily on developing a reading club or reading activity that would attract the target group and selecting books appropriate for the target groups. It is unsurprising that there is such a heavy focus on reading and literacy promotion as formal qualifications in Wallonia train library staff in the development of strategic literacy development plans. Thus, these training offers build up on that skill set.

Other training provisions include stronger team management and transversal competences. These range from working as a team to build a strategic plan to learning to manage a group and negotiate group dynamics. The final category of training offers for librarians is focused on digital tools. There is a relatively small offering of sessions focused on digital tools aimed specifically at librarians and these focus on developing a strategic monitoring tool with RSS feeds and search parameters and pedagogical training for media literacy. Thus, this would suggest that the primary focus of Wallonian libraries and French-speaking libraries in Brussels is to develop a stronger culture of reading above all.

Job vacancy analysis

The library sector in Belgium does not hire frequently. In 2018, FOREM (the Wallonian service for employment and vocational training) reported advertising and managing around seventy vacancies for a librarian position[29]. The VDAB (Flemish service for employment and vocational training) reported around 84 vacancies for a librarian role and 30 for a library director/information manager in 2019. As limited information on the vacancies from past years is available, the vacancies from 2020 were analysed for this section.

Various profiles emerge from managerial to technical staff with a myriad of responsibilities. A general trend, regardless of seniority is that managerial and technical staff have to be front-facing and have to manage their collections. Depending on the classification, technical staff will be more focused on re-shelving the collections and directly interacting with users whereas managerial staff will focus on strategic development whether it is on reading promotion or applying cultural policy. Technical staff are expected to possess the digital skills needed for social media management whereas managerial staff have to be knowledgeable on library management systems and general office-related digital skills.

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[28] Service général de l'Action territoriale; Service de la lecture publique, 2020. Catalogue Des Formations. Bruxelles: Féderation Wallonie-Bruxelles.

[29] Leforem.be. Le FOREM - Horizons Emploi. [online] Available at: <https://www.leforem.be/Horizonsemploi/rome/32214.html> [Accessed 30 March 2020].

Generally, the responsibilities for technical and managerial profiles coincide with each other and differentiate themselves based on the "level" of the role and years of experience.

II. Bulgaria
Regulatory framework, policies, and strategies
Laws

Pre-School and School Education Act

This law regulates public relations related to the provision of the right to pre-school and school education as well as the structure, functions, organisation, management and financing of the system of pre-school and school education. This law applies to school vocational education and training, unless otherwise regulated by the Vocational Education Act.

Vocational Education and Training Act
The Vocational Education and Training (VET) Act defines the purpose and the tasks of the vocational education and training system, its structure and nature, regulates the organisation, institutions, management and financing of the system of vocational education and training, and the social relations in connection with: promulgated, State Gazette No. 68 of 30th July 1999, last amended State Gazette No. 103 of 28th December 2017, defines the purpose and the tasks of the vocational education and training system, its structure and nature, regulates the organisation, institutions, management and financing of the system of vocational education and training, and the social relations in connection with:

- ensuring the right to vocational education and training of the citizens according to their personal interests and possibilities;
- meeting the needs for qualified manpower which is competitive on the labour market;
- providing conditions for functioning and development of the system of vocational education and training based on cooperation between its institutions and the bodies of the executive power and the local independent government and the social partners;
- validation of professional knowledge, skills and competencies.

The Vocational Education and Training Act regulates the general requirements for the organisation of the vocational education and training system and determines the conditions and procedures for acquiring vocational qualification. Pursuant to this law, vocational education ensures the acquisition of secondary education and vocational training and may also be carried out through work-based learning (dual education system).

The Law regulates the completion, certification and recognition of vocational education and training as well as the content of vocational education and training. The Law regulates the vocational education and vocational training of pupils in special educational needs and/or chronic diseases, pupils from homes for children without parental care and deviant behaviour.

The VET Act regulates both vocational training in the formal education system and vocational education and training outside this system, e.g. non-formal vocational training and adult education, in the workplace, regardless of whether it is provided by state institutions or non-governmental organisations. The amendments to the Law of 2014 introduce a system for validation of non-formal and informal learning, dual training and training in protected professions related to the development

of the economy at regional level, as well as regulate the terms and conditions for accumulation and transfer of credits in vocational education and vocational training.

Higher Education Act

The Law regulates the constitution, functions, management and financing of higher education in the Republic of Bulgaria. It defines the objective of higher education, namely to train specialists of high qualifications above the secondary school level and to develop science and culture. It states that the higher secular education is independent of ideologies, religions and political doctrines, and shall be provided in keeping with universal human values and national traditions

Other Legal Acts

Ordinance No. 2 of 8.09.2015 on the Quality Assurance of Vocational Education and Training issued by the Minister of Education and Science regulates the conditions and the order for development of an internal system for quality assurance of the vocational education and training in the institutions under Article 9, Paragraph 1 of the Vocational Education and Training Act

List of professions for vocational education and training (LPVET) under Article 6 of the Vocational Education and Training Act (VETA) are documents that pursuant to Article 42, Paragraph 3 (b) of VETA. They are developed and updated by the National Agency for Vocational Education and Training and are approved by orders of the Minister of Education and Science in coordination with the respective ministries and administrative units.

This list indicates:

No. 32 in the area JOURNALISM, MASS-COMMUNICATION AND INFORMATION[30]
Professional Field: 322 Library and Information Sciences and Archival Science Name of profession: 322010 Librarian Name of the specialty: 3220101 Library Science Degree of professional qualification: 3 Recommended positions and unit groups of NCOP (4411-3003) (2622)

The list is relevant to:
- the European multilingual classification of Skills, Competencies, Qualifications and Occupations (ESCO)
- the National Qualifications Framework (NQF) in Bulgaria
- the National Classification of Occupations and Positions in the Republic of Bulgaria, (NCOP)

The NCOP further classifies the sector in the following way

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[30] *NAVET, 2019. EXPLANATORY NOTES TO THE LIST OF PROFESSIONS FOR VOCATIONAL EDUCATION AND TRAINING | National Agency For Vocational Education And Training. [online] Navet.government.bg. Available at: <https://www.navet.government.bg/en/explanatory-notes-to-the-list-of-professions-for-vocational-education-and-training/> [Accessed 23 April 2020].*

Subclass 262 Librarians, archivists and editors are assigned the following positions:

2622- Chief Librarian
2622- Chief Bibliographer
2622- Expert Librarian
2622- Methodist, Library
2622- Expert Bibliographer
2622- Documentary
2622- Expert, Economic Information
2622- Expert, Technical Information
2622- Librarian
2622- Bibliographer
2622- Librarian/Specialist
2622- Bibliographer
2622- Reference Bibliographer
-- -
4411-3001 Filing Cabinet
4411-3002 Music Librarian
4411-3003 Worker, Library

Ordinance No. 2 of 13.11.2014 on the conditions and procedure for validation of professional knowledge, skills and competencies , issued by the Minister of Education and Science, determines the conditions and the order for validation of professional knowledge, skills and competencies acquired through non-formal or informal learning.

State Educational Standards and State Educational Requirements

Vocational training is provided on the basis of State Educational Standards (SES) and State Educational Requirements (SER)

The SES for acquiring professional qualifications from the LPVET under Article 6 of the Vocational Education and Training Act (VETA) are documents pursuant to Article 42, Paragraph 3(b) of VETA. They are developed and updated by the National Agency for Vocational Education and Training and are approved by orders of the Minister of Education and Science in coordination with the respective ministries and administrative units.

The SER for acquiring professional qualifications define the obligatory professional competencies required for practicing the profession and they are mandatory for all training institutions entitled to organise training courses and to issue the corresponding Certificates of vocational qualification or training upon their completion.

There are SER for the profession of "Librarian". They are developed on the basis of the above LPVET Inputs are described in detail - the profession described; the aims and results of the training; the requirements for the facilities; requirements for trainers.

Based on the State Educational Requirements and the Vocational Education and Training Act:

- Curriculum and curricula for specialty training are developed;

- Determine the professional competencies at the end of the vocational training that guarantee the trainee the opportunity to practice the profession 322010 "Librarian";
- The general, sectoral and specific compulsory vocational training for the profession is determined, as well as the compulsory foreign language training for the profession and elective training. These include: 1. the necessary professional competencies (knowledge, skills and professional personality); 2. the subject

In conclusion, Bulgarian legislation is harmonised with the European standards and requirements related to the processes of vocational continuing education and training in Bulgaria. The work of all institutions set up for this purpose is subject to the adopted programming documents and is in line with the EU programmes, practices and projects in the field of lifelong learning. In recent years, with the application of Information and communications technology (ICT) in libraries, a search for new skills and competencies has been identified, so it has been decided to develop a SES for acquiring the qualification of a "librarian". As of February 2020, a task group has already begun to develop such a standard that will enable alignment to the ECVET principles by defining the professional knowledge, skills and competencies to be acquired by the students grouped as Learning Outcome Units (LOUs). This will make them accessible for evaluation and validated for the purposes of lifelong learning, flexible vocational training and more career opportunities, and will enable transparency of the professional qualification of a librarian. Each of the LOUs in the SES for qualification can be independently evaluated and/or validated, which will facilitate access to vocational training for the acquisition/upgrading of vocational qualifications and access to employment in the labour market. In secondary education, including vocational schools, there is already a format for the National Online External Assessment of Digital Competencies, which has been carried out at various stages, with all tenth grade students being evaluated in 2017. In the field of vocational education at high school, new curricula are being funded and created. There are already twenty new school subjects created, some of them related to digitisation.

National policies

A national digital training policy is to be implemented from 2021 onwards along with a national digital program focusing on digital growth in the lead-up to 2025. As these indicate what the Bulgarian government will be focusing on and investing in, it is important to take that into consideration and identify any links to the library sector/potential training needs and prepare for those accordingly.

For the next HRDOP (Human Resources Development Operational Programme) programming period, more than BGN 500 million have been assigned for trainings and other initiatives related to digitisation in the labour market. Promoting lifelong learning will also be a major focus of the policy of the Ministry of Labour and Social Policy (MLSP)[31].

The Human Resources Development Operational Programme is planning mass trainings in digital competencies that will include almost all employed or unemployed people. This is one of the main priorities of the European Social Fund Plus (ESF+) for catching up with the digital skills of the Bulgarian

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[31] Ministry of Labor and Social Policy, 2017. Minister Sacheva: We Will Focus Our Efforts On Improving The Quality Of Vocational Training Centers. [online] Available at: <https://www.mlsp.government.bg/index.php?section=PRESS2&prid=1941&lang=> [Accessed 23 April 2020].

workforce during the next programming period from 2021-2027. Improving digital skills is part of reforming the labour market and enhancing social inclusion in Bulgaria.

Status and Policies Regarding Digital Inclusion and Skills in Bulgaria

The charts below are part of a research performed by Stanislav Ranguelov, Deputy Head of Unit DG Employment, Social Affairs and Inclusion, EU, on digital inclusion, skills, policies and perspectives ahead of Bulgaria in relation to the ESF+, part of the EU's budget for 2021-2027, which will be the main financial instrument for strengthening the social dimension of Europe by applying the principles of the European Pillar of Social Rights[32].

Digital skills at the work place
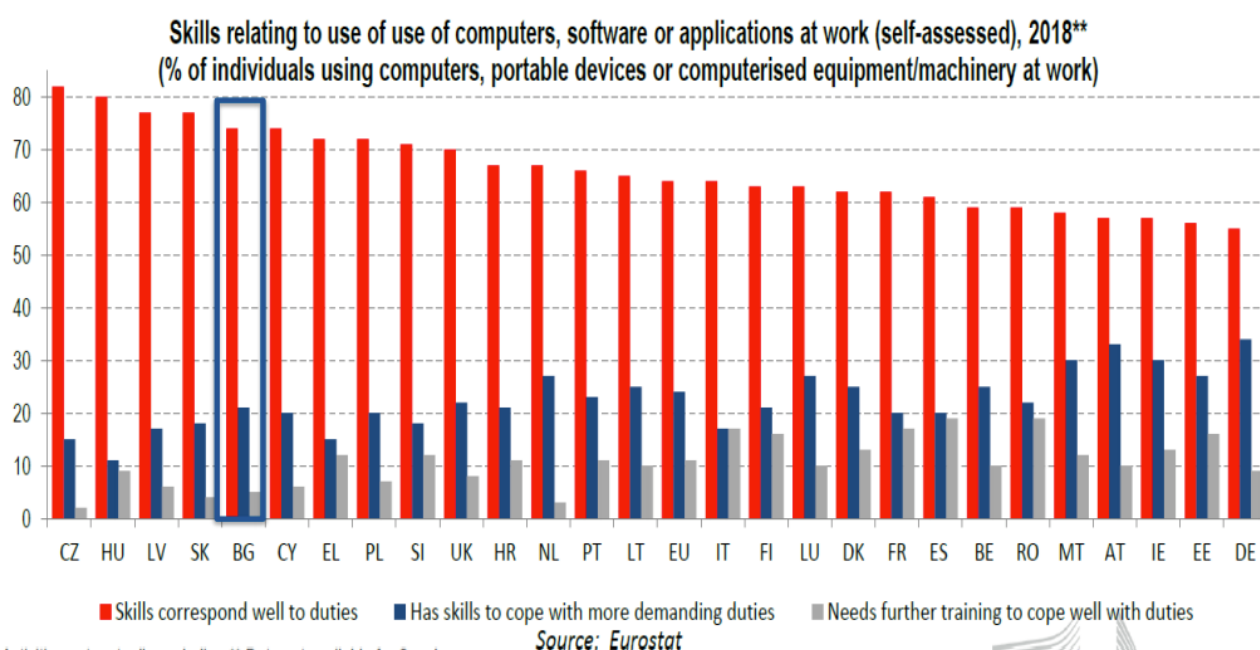
Figure 1 - Bulgarian Digital skills at the work place

[32] Raguelov, S., 2020. Digital Inclusion And Skills: A Policy Perspective. [online] Navet.government.bg. Available at: <https://www.navet.government.bg/bg/media/Digital-skills-in-the-ESF.pdf> [Accessed 23 April 2020].

Low levels of skills (active population)
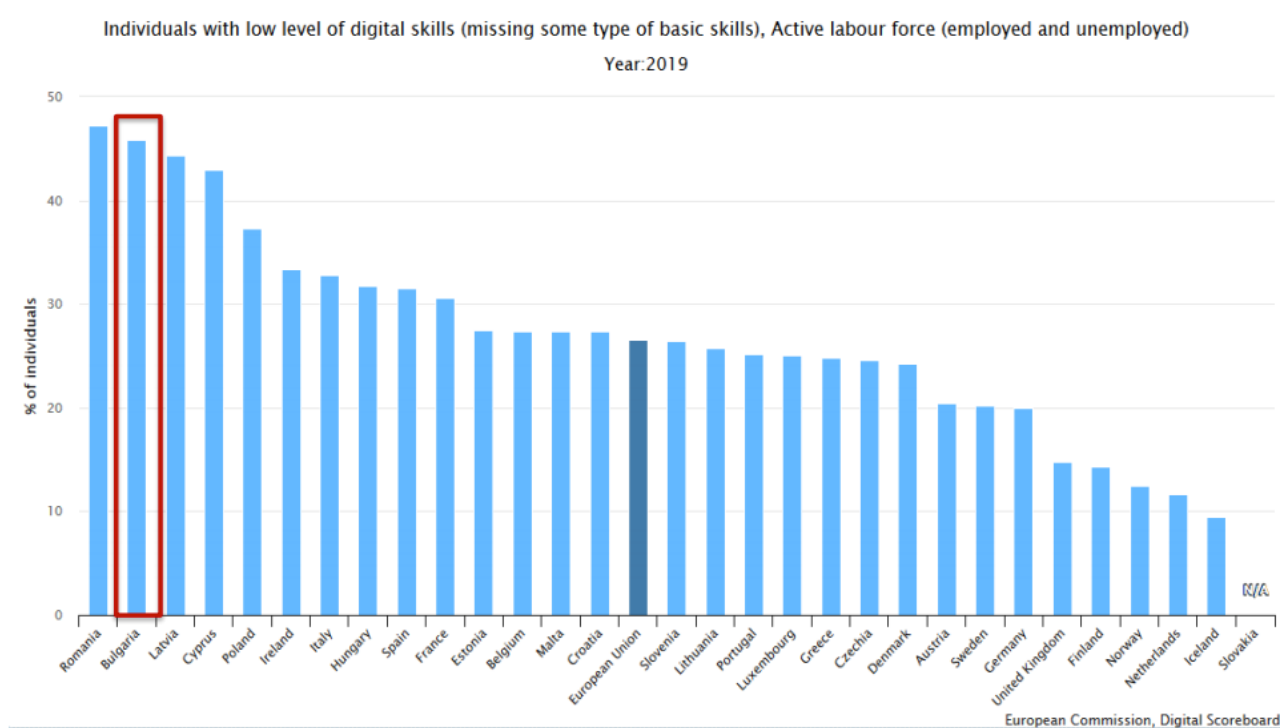
Figure 2 - Bulgarian level of basic digital skills in the active population

At least basic skills (by status)
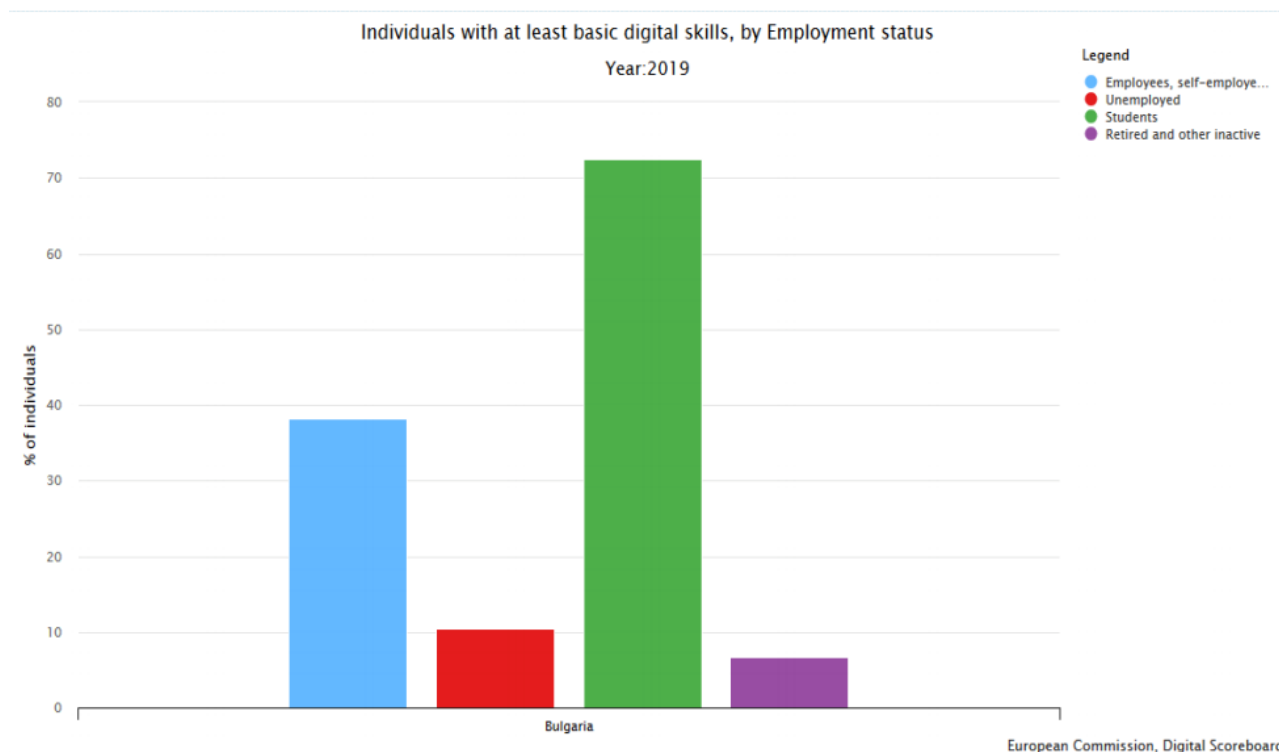
Figure 3 - Bulgarian population with at least basic digital skills

Low levels of skills (by age groups)
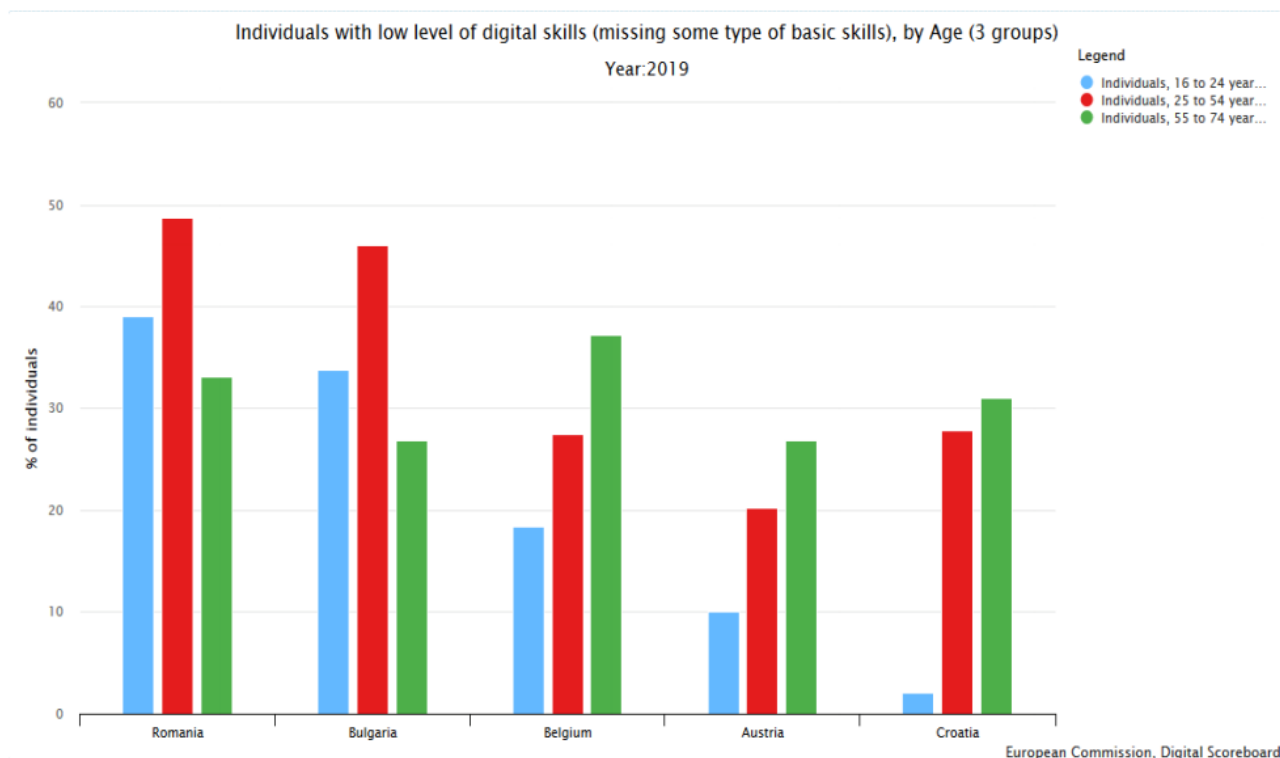
Figure 4 - Low level of digital skills by age groups in Bulgaria

Title:	**Librarianship in Europe – mapping professional needs**
Authors:	Tiana Zignani / PL2030, Flavia Massara / ICCU, Aneta Doncheva, Spaska Tarandova / GLBF, DAISSy Research Group / HoU, Baiba Holma, Daina Pakalna / KISC

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Bulgaria Digital Scoreboard profile

Figure 5 - Bulgarian Digital Scoreboard profile

Thus, the key Bulgaria Priority Targets have been identified:

- *Relevant Specific Components:* People with low levels of skills; General knowledge and user-level experience; Age specific; Employment status specific; Household income (social inclusion element); Education status specific; Disadvantage factors (especially multi-disadvantage); Urban/Rural divide
- *Not (Very) Relevant Specific Components:* Gender; Nationality; Geographic scope (capital-big city-small city); Specialised advanced skills

Training provisions
Vocational Education Institutions in Bulgaria

- The Ministry of Education and *Science* (https://www.mon.bg/bg/2)
- The National Agency for Vocational Education and Training (NAVET*):* (https://www.navet.government.bg/) *(subordinate to the Ministry of Education)*
- The National Evaluation and Accreditation Agency: (https://www.neaa.government.bg/)
- Ministry of Labour and Social Policy: (https://mlsp.government.bg/index.php?section=HOMEN2&lang=)

- Employment Agency (https://www.az.government.bg/bg/)

Vocational Training (for Students)

Primary and lower secondary education, secondary education in all types of schools and vocational education after secondary education in the vocational colleges (educational levels ISCED - 1, 2, 3 and 4); vocational (art schools, sport schools, vocational gymnasiums providing training on programmes for attainment of third and second level of professional qualification, including religious schools).

In Bulgaria, the profession is acquired at the *National High School of Polygraphy and Photography in Sofia:* daily education form of the Library Science Program, Profession Librarian[33].

Vocational Training for People over 16 Years of Age

Vocational training against payment for attaining of vocational qualification in centres for Vocational Training Centres (VTC), vocational gymnasiums, vocational colleges and vocational schools, covering the education of the individuals, which are older than 16 years and enrolled in vocational programmes against payment leading to vocational qualification, according to the Law on Vocational Education and Training (educational levels ISCED - 2, 3 and 4). See Annex 4 for the full list of VTCs and their training programmes in Bulgaria as of March 2020.

Education for Acquiring the Educational-Qualification Degrees 'Professional Bachelor', 'Bachelor' and 'Master'

Tertiary education for acquiring the educational-qualification degrees 'Professional Bachelor', 'Bachelor' and 'Master' in colleges, universities and equivalent higher schools (educational level ISCED - 6 and 7).

Tertiary education for acquiring the educational and scientific degree 'Doctor' in universities and scientific organisations (educational level ISCED - 8).

It is acquired in higher education institutions that meet the requirements of the Higher Education Act.

In Bulgaria, two higher education institutions are accredited in the Higher Education Area: 3. Social, Business and Legal Sciences and Professional Degree: 3.5. Public communications and information science majors (ISCED-F 20131). They are accredited to BA, MA and PhD programmes.

St. Kliment Ohridski Sofia University
Bachelor's Degree Programmes

- Library and Information Studies B.A. graduates have the professional qualification of library and information specialists.
- Public Information Systems /Professional Qualification: Bachelor of Public Information Systems

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[33] Npgpf.bg. 2020. Library Science - Национална Професионална Гимназия По Полиграфия И Фотография. [online] Available at: <https://www.npgpf.bg/en/specialty/library-science/> [Accessed 23 April 2020].

- There are Master's Programmes[34]:
- Library and Information Studies;
- Library and Information Sciences and Cultural Policy;
- Library and Information Technology;
- History of books and reading

And there are three Doctoral Programmes[35].

<u>The University of Library Studies and Information Technologies (ULSIT)</u>

BA Programme Specialties[36]. Specialties in the Faculty of Library Studies and Cultural Heritage:

- Library Studies and Bibliography
- Library and Information Management
- Print Communications
- Information Collections of the Cultural and Historical Heritage
- Archive and Documentary
- National Security and Cultural and Historical Heritage
- Information Resources of Tourism

<u>BA AFTER PROFESSIONAL BA DEGREE</u>[37]

- Information technology
- Information brokerage
- Library Science and Bibliography (for ULSIT graduates before 1997)

There are fifteen Master's Programmes[38] and seven Doctoral Programmes[39].

In conclusion, there are providers of educational services for vocational training and qualification in Bulgaria; there are working institutions in secondary education where vocational education is provided at secondary level, e.g. in the first and second high school stages by providing general education and vocational training. Vocational training for the acquisition of professional qualifications

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[34] Phls.uni-sofia.bg. 2020. Философски Факултет. [online] Available at: <http://phls.uni-sofia.bg/article/details/115#tab132> [Accessed 23 April 2020].

[35] Phls.uni-sofia.bg. 2020. Философски Факултет. [online] Available at: <http://phls.uni-sofia.bg/article/details/115#tab133> [Accessed 23 April 2020].

[36] Unibit.bg. 2020. Bachelor Specialties | University Of Library Studies And Information Technologies. [online] Available at: <https://www.unibit.bg/en/learning-activity/bachelor/bachelor-specialties> [Accessed 23 April 2020].

[37] Unibit.bg. 2020. Специалности ОКС Бакалавър След Професионален Бакалавър | Университет По Библиотекознание И Информационни Технологии. [online] Available at: <https://www.unibit.bg/learning-activity/professional-bachelor/professional-bachelor-specialties> [Accessed 23 April 2020].

[38] Unibit.bg. 2020. Специалности ОКС Магистър | Университет По Библиотекознание И Информационни Технологии. [online] Available at: <https://www.unibit.bg/learning-activity/master/master-specialties> [Accessed 23 April 2020].

[39] Unibit.bg. 2020. Важна Информация ОНС Доктор | Университет По Библиотекознание И Информационни Технологии. [online] Available at: <https://www.unibit.bg/learning-activity/ph-d/current-information-masters-pd> [Accessed 23 April 2020].

of first, second and third degree by people over the age of 16 is provided at the Vocational Training Centres (VTC) licensed by the National Agency for Vocational Education and Training (NAVET). The educational-qualification degrees "Bachelor", "Master" and "Doctor" are acquired in colleges that meet the requirements of the Higher Education Act in the country. A good organisation has been set up regarding the management and control of the acquisition of professional qualifications by NAVET and the Employment Agency. However, the coordination among all institutions and organisations listed as VET providers is poor and particularly inefficient.

Job vacancy analysis

The challenges and trends of the labour market in the library sector in Bulgaria is based on:

- Analysis of the Employment Agency on the state of the labour market in Bulgaria[40]
- Various analysis and publications of the Bulgarian Library and Information Association (BLIA);
- A national representative survey among public libraries in Bulgaria carried out in 2017 by the Global Libraries - Bulgaria Foundation (GLBF)[41] and data from the National Statistical Institute referring to the library sector[42].

Economic and Social Environment

Although in the last few years there have been positive rates of change in the macroeconomic indicators in the country, libraries and the library sector in general do not have sufficient financial resources available, and this has been the case for years. The approximate amount of funding (state and municipal) for all types of public libraries for 2017 is about BGN 36 million, or about 0.32% of the 2017 budget. During the period between 2009 and 2017, the amount of government subsidies for public libraries grew by about 5-6% per year. However, this growth was offset by the increase of other key economic indicators (such as the minimum wage).

The development of library infrastructure in Bulgaria during the late 20th century to early 21st century has undergone a number of transformations, yet its reformation still remains incomplete. It is characterised by the following:

- There are major changes in the number of libraries. Statistics show that in 1995 there were 8,069 libraries in the country, in 2000 they were already reduced to 6,942, and in 2013 (the latest official data for the whole network in the country) the libraries were 3,938. A large number of different types of libraries are still available, some of which do not work well and effectively and some of their activities are duplicated. The distribution of libraries in the country is far from even in terms of population distribution and demographic changes;
- The library infrastructure in the country consists of units that are not homogeneous. They differ in type and in all key indicators. There are two groups of libraries in the system. The first group consists of developing libraries seeking to apply modern approaches to the organisation of library activities and the services provided. Although being a small proportion (about 9-

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[40] Employment Agency of the Republic of Bulgaria, 2018. ОБЗОР ЗА СЪСТОЯНИЕТО НА ПАЗАРА НА ТРУДА. Employment Agency of the Republic of Bulgaria.

[41] Glbulgaria.bg. 2020. Проучвания И Анализи | Фондация „Глобални Библиотеки – България". [online] Available at: <http://www.glbulgaria.bg/en/node/33033> [Accessed 23 April 2020].

[42] 2019. Employment And Unemployment - Annual Data Of 2018. Sofia: National Statistical Institute.

10%), they form the backbone of the system and so far, the government's attention has been focused on them. These are regional libraries and city libraries in well-developed economic cities, university, academic and school libraries, which have been developing well due to the serious investments in the Bulgarian education and science in the last few years. The second group is the one consisting of poorly developed libraries of today, which find it difficult to cope with the minimum funding available, lack of staff, lack of appropriate equipment (material, technological), etc. Most of these libraries are public libraries in small settlements; 63-93% of the libraries in poor and very poor condition are located in municipalities with population of less than 20,000 people;

- The country lacks a system for measuring the performance of libraries;
- The library sector has never been the focus of reform in the country. The lack of an overall government's vision for development of the library sector and the lack of a strategy for the development of public libraries make it impossible for the libraries themselves to come up with their individual development strategies in accordance with the requirements of modern society.

Demographic Trends

Studies of the Bulgarian Industrial Association[43] show that:

- Over the last 14 years, the natural population growth has fallen by approx. 6%. Villages become depopulated and gradually disappear from the map. Population growth rate in villages is falling five times faster than the cities.
- Over the last 14 years, the working-age people have decreased by about 400,000 (8%). Each year, the workforce is reduced by an average of 35,000 people.
- About 27,000 young people leave the country yearly.
- The attitudes towards internal and external migration of young people are increasing. About 70% of secondary school graduates state that they will migrate abroad, move to live in the capital city or to another major city.
- The population is aging. By 2000, the ratio between the numbers of people moving into (15-19) and out of working age (60-64) was 124/100. In 2014, this ratio was 60/100. In 2040-2050, 3 out of 5 people will be retired and 2 will be working.

These trends have an impact on the work in libraries. The aging staff trend is of great concern. Many young people graduating from universities migrate abroad and refuse to live in small and remote locations, so there are no young people employed in most of the libraries.

Workforce, Employment and Unemployment

In Bulgaria, it is reported that the successful realisation of the labour market is largely determined by the level of education and qualification. Employment among people with primary and lower education is increasingly reduced compared to the employment of those with higher level of education. For the

[43] ТЕНДЕНЦИИ, Д., 2020. *Демографски Тенденции*. [online] Bulgarian Industrial Association. Available at: <https://www.bia-bg.com/focus/view/21463/> [Accessed 23 April 2020].

period from 2008-2012, the percentage of employees of 25-64 years of age with primary and lower education decreased by 51.5%, of those with primary education decreased by 32.2%, of those with secondary education by 8.8%, and of those with tertiary education by 1.9%. Education and employment are on a pro rata basis resulting in the employment rate of people with graduate degrees being more than four times higher than the employment rate of people with primary and lower education. It is evident that the labour market in libraries is in line with these trends.

Various studies performed during the period from 2012-2015 show that the regional libraries employ staff varying between 11-25 people and 26-50 people; public libraries have employed staff of up to 3 people, most of them university libraries with 4 to 10 librarians. The GLBF survey shows that most critical is the staffing situation in small public libraries. 15% of the Bulgarian libraries still have not employed a full-time librarian. The situation has not changed for the last three years. There is a significant inconsistency between the number of librarians employed and the quantity and quality of activities in different libraries. See Annex 5 for data on the number of library professionals employed in Bulgarian libraries.

A problem is emerging within the library system and it concerns the qualification of staff. Of course, it exists in regional and university libraries to a much lesser extent but, nevertheless, it affects the entire library network, even some industry-specific scientific and special libraries. In 2017, the employees of 54% of the country's small public libraries had no library qualifications. In 2008, this proportion was 52%. These data indicate that the library network is gradually losing its professionals. At the same time, the employees of 42% of the libraries have not received any training in the last three years.

As of March 6 2020 there are 208,222 active jobseeker's profiles. The Employment Agency website enables searches by positions held: 262 - Librarians, archivists and curators; by specialty: 322 - Library and Information Sciences and Archival Science; and by education: Secondary, Professional College, Higher, Professional Qualification. Unfortunately, this search can be made by municipality, so we required more general statistics from the Agency which we officially addressed. They also find it difficult to summarize this type of information, but they have informed us that between 20 and 45 job vacancies in the country are announced per month. See Annex 6 for the job vacancies identified.

The 2018 data of the National Statistical Institute show that the largest proportion of unemployed people take those with secondary education, 85,000 including 50,800 with acquired professional qualification[44].

At the same time, the data of the National Statistical Institute show that the number of young people between the age of 15 and 29, who neither study nor work, is approximately 170,000. According to the Minister of the Ministry of Labour and Social Policy, it is not known where they are located, what age they are and what their education is. A suggestion was made to analyse these categories and to propose specific programs to enhance their qualification and validate their current skills[45].

Remuneration and Efficiency of Labour

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[44] 2019. Employment And Unemployment - Annual Data Of 2018. Sofia: National Statistical Institute.
[45] Ministry of Labor and Social Policy, 2017. Minister Sacheva: We Will Focus Our Efforts On Improving The Quality Of Vocational Training Centers. [online] Available at:
<https://www.mlsp.government.bg/index.php?section=PRESS2&prid=1941&lang=> [Accessed 23 April 2020].

Bulgaria takes the last place in EU in terms of the per capita income index (47% in 2012) and therefore the country needs policies stimulating the economic and employment growth, which in turn will help to increase the population's well-being.

A key problem for the sector is the extremely low pay of library staff, as salaries are defined as "infamously low and humiliating for librarians". The low pay drives the skilled workers out of the sector and blocks the entry of new ones. In the long run, such tendency could be detrimental to the sector.

Due to the low pay of the librarians, there are many vacancies which, however, the official statistics sometimes fails to accurately reflect. A few vacancies have been identified (see Annex 6) for the role of "librarian" and "head of department". The jobseeker profile for a library-related position was also examined. It is worth noting there is an emphasis on basic digital skills as a requirement for all of these positions.

In conclusion, according to medium- and long-term projections for the development of the labour market in Bulgaria[46], the employment and imbalances in the labour market and the labour supply factors (2008-2034), the labour market will raise the following key issues that will also affect the library sector:

- The skilled workforce is focused in 10 regional cities and it will be difficult to find qualified librarians for the public libraries in smaller settlements.
- By 2030, 55% of new job positions in Bulgaria will require an average level of qualification, which will also be required for librarians, so that changes and the need for new skills in the labour market are now being considered.
- A national issue (including libraries) is the unclear classification of jobs, main responsibilities and competencies. In practice, the entire education system has been modified, the legislation has been amended and the organisation of work has been changed, and to date there is a large imbalance of jobs in terms of education and the required competencies, knowledge and skills. The pursuit of a higher education degree and the lowered criteria of the Bulgarian universities have produced many bachelors and masters who get employed by libraries requiring such qualifications. Bulgaria has also rejected the vocational college education, which in practice eliminated the fifth educational degree.
- At this stage, research shows that librarians in public libraries identify themselves in three key roles. The first role refers to the functioning of the library as such, e.g. completing, cataloguing, information referencing and customer service. The second role is managerial, particularly maintaining library documentation, but also participating in projects and raising sponsorships and donations. The third role refers to interaction with users. This role is considered to be the most important since it determines the position of the library in the community.

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[46] Ministry of Labor and Social Policy, 2019. ЗАЕТОСТ И ДИСБАЛАНСИ НА ПАЗАРА НА ТРУДА, ФАКТОРИ НА ПРЕДЛАГАНЕТО НА ТРУД (2008–2034). Sofia: Ministry of Labor and Social Policy.

- The preferences for various forms of continuing education in libraries which can be seen in the discipline-related courses held by the BLIA show that librarians in large libraries are very keen to acquire digital technology skills[47] (Lifelong Learning Mobility Sharing Workshop, 2012).

Training provided and competences covered

The trainings are carried out under curricula which are largely consistent with SER and related to EQF Level 4 and NQF Level 4 for high/general school graduates and three-degree professional qualifications in the profession 322010 "Librarian" in the area of education "Journalism, Mass Communication and Information" and professional field 322 "Library and Information Sciences and Archival Science" as described in Annex 7.

Upon completion of the vocational training on the profession of "Librarian", specialty "Library Studies", the trainee, in compliance with the STATE EDUCATIONAL REQUIREMENTS (SER) on the profession/the specialty must demonstrate the **following results of the training**:

Knowledge:

- Knows the structure and organisation of the library system and the powers of authorities;
- Knows and applies the normative documentation for the work in the library, the rules for preparation, processing and storing of documents and information;
- Knows how to prepare an annual plan and report on the work in the library;
- Knows the structures of the municipal and/or school administration and their powers;
- Has basic knowledge and skills for working with report documentation relating to the fulfilled administrative activities and paid services in the library and/or the culture community centre;
- Knows the rules and processes for stocking library documents through purchase, gifts, book exchange, etc.;
- Knows the basic rules for library services of patrons;
- Knows how to safeguard the library stock;
- Knows the techniques for referential services provided to patrons;
- Is aware of the rules for designing and implementing a project relating to the work of the library;
- Knows the rules for organising cultural events in the library / the culture community centre / the school;

Abilities:

- To make inventories and classifications of various documents; to include them in traditional and/or e-catalogues in the library;
- Works in a team actively participating in the task distribution, cooperates the team members when carrying out the tasks and seeks help from colleagues; able to take responsibility;
- Works with library documentation and standards;

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[47] Lib.bg. 2012. Lifelong Learning Mobility Sharing Workshop. [online] Available at: <https://www.lib.bg/index.php?option=com_content&task=view&id=1079&Itemid=11> [Accessed 23 April 2020].

- Keeps record and schedule of the events reflected in the culture events calendar of the region / culture community centre / the school;
- Makes a plan and report on the job done and presents it to the school authorities / the culture community centre board / the municipality council / the residents;
- Initiates activities distributing the library and information literacy amongst the patrons;
- Creates, conserves and safeguards the library stock;
- Discloses library stock through traditional and electronic catalogues and other methods;
- Provides referential-bibliographic and information services to patrons;
- Arranges and conducts trips in the library, meetings with authors and other events; develops designs on library showcases, exhibitions and displays and implements them;
- Participates in the implementation of national and international projects;

See Annex 8 for a detailed breakdown of the learning outcomes of librarian training programmes in Bulgaria.

Trained Librarians

Data has been collected on the number of people trained for the role of a librarian in Bulgaria. The table in Annex 9 highlights the total number of trained librarians every year as well as the proportion of librarians receiving their training from VTCs.

In conclusion, training programs are an integral part of the VTC licensing documentation. However, they are not formally published by NAVET and cannot be accessed. Some VTCs have published their programmes, but unfortunately only four of them are accessible, as is the programme of the National High School of Polygraphy and Photography. The lack of transparency is a major disadvantage of the VTCs' performance. Thus, efforts should be directed at improving the quality of the courses they provide; In Bulgaria, no National Digital Competence Framework has yet been established to identify the training needs and opportunities, and their types, and to validate the workforce knowledge[48].

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[48] Mlsp.government.bg. n.d. Министерство На Труда И Социалната Политика. [online] Available at: <https://www.mlsp.government.bg/index.php?section=PRESS2&prid=1934> [Accessed 23 April 2020].

III. Greece

Regulatory framework, policies, and strategies

The Greek library sector is subject to various laws and regulations detailing the functions of libraries as well as the profile of library staff.

Law 3149/2003: National Library of Greece, public libraries and other provisions

According to article 4, the National Library of Greece must divide its personnel into the following categories: university education, technological education, secondary education, compulsory education. Each of these categories are composed of various branches covering administration and finances, librarians, archivists, public relations, conservation of work of art and antiquities, informatics, typography, drivers, and cleaning personnel. Of those in the branch of librarians, four must hold postgraduate degrees in library and information science. While this framework defines various categories and the profiles associated to these categories, personnel positions and categories can be redefined. In this case, qualifications may be defined for branches that are not subject to public administration. This creates a flexibility for new profiles to enter the sector.

Coding of professional skills[49]

The right to be appointed as a Librarian at a lower level (introductory) depends on the ownership of a degree or diploma in archiving and librarianship from a domestic university or equivalent university from abroad, with equivalent specialty. In case it is not possible to fill positions by candidates with the above qualification, it is allowed to appoint as a librarian to any individual holding any university degree from a domestic or equivalent foreign university and an additional postgraduate degree in librarianship, of at least one academic year and at least a very good knowledge of a foreign language, as defined by the vacancy notice. In case it is not possible to fill positions by candidates with the aforementioned qualifications, the appointment can be made to an individual with a university degree from a domestic or equivalent foreign university and a diploma in Librarianship Science from a domestic or equivalent foreign technological educational institution.

Ministerial Decision 83064/IZ/2003

In line with the UNESCO Declaration on libraries, this regulation defines the role of public libraries in Greece. Libraries in Greece have the goal of promoting knowledge, information, education and culture and therefore performs the following activities to fulfil the aforementioned objectives:

- Operates as a local information centre and provides their users with access to all kinds of knowledge and information
- Enhances readability and all kinds of relevant educational and cultural activities
- Provides special services and materials to users who cannot, for any reason, use the standard services and existing library materials such as foreign language minorities, people with disabilities or people who are in hospitals, prisons etc

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[49]Ministry of Internal Affairs, Organization of Public Services, Coding of Professional Skills, Article 10 Librarians, (2013) September

- Act in every direction to fulfil their mission

A provision exists within this Ministerial Decision wherein, cultural activities are not a central point for the provision of library services. However, these are considered to support their wider Greek educational and cultural activities. Thus, there may be a stronger emphasis on collections and reading services in Greek libraries than cultural activities as a support to this provision.

The Library Material Collections must meet the information, educational and training needs of their audience at any given time. The development of Library Collections is characterized by specific processes, that represent the development of the needs of the public, and their progressive development is set by the pace of those needs. These two processes work in conjunction with the identification of specific thematic categories that each library selects to focus on with its Collection. The end goal is to continuously improve the information services provided to the public by the Library. The Collection development policy is comprised by a series of procedures that include the following activities:

- Analysis of the information needs of the community
- Material selection policy
- Acquisition of Material
- Material processing
- Inventory
- Withdrawal

Material Selection

The choice of Material is based on:

- the purpose and objectives of the Library as stated above
- the general thematic direction of development of the Collection
- the needs of the public, as they arise from the evaluation process
- the types and quality of materials
- the population
- the statistical data of demand and use of said material

The Collection of Materials and the services offered must reflect the current trends and evolution of society as well as the memory of human effort and imagination, without being subject to any ideological, political or religious prejudice, nor to commercial pressures. At the same time, all kinds of material that has the obvious purpose of religious proselytism, political propaganda, hate speech, insulting of certain groups of the population and commercial gain must be avoided at all costs. The Collections must include all types of suitable media and modern technology as well as traditional Material. Finally, the quality and relevance of the chosen Material and the services provided must take into account the local needs and conditions which are considered an essential parameter.

Material Processing

The efficient provision of service to the public, the utmost utilization of the possibilities of each individual library and its inclusion in the library network presupposes the standardised and systematic

organisation of its material. The development of the collections in a way that ensures the standardized and homogeneous organisation of the material requires the physical and electronic processing of said material with the application of international library standards and the use of specialised tools.

The physical treatment concerns the physical preparation of the material for its inclusion in the collections of the library before it being put to use by the public (labelling, maintenance etc).

Library processing includes:

- Introduction
- Cataloguing
- Classification
- Thematic rendering of terms

The electronic processing concerns the automation of the catalogue based on programmes suitable and compatible for the cooperation with other libraries and for the inclusion in the library network. In this case, the automated systems used must be in UNIMARC format.

Cataloguing

The cataloguing is done by applying the latest revised version of the Anglo-American cataloguing rules, from the original English text or a corresponding Greek translation. The issuance of thematic terms is based on national and international standards (Thematic headings of the Library of Congress and the National Library of Greece or other libraries that follow the national standards).

Libraries use the latest versions of the above tools so that the editing agrees with the new library data and the resulting changes, seeking compatibility and homogeneity.

Classification

The classification is done according to the taxonomic system DEWEY and the latest version of the project is followed with its respective Greek approved additions and translations.

This Ministerial Decision also outlines the purpose of public library staff in Greece. They are expected to serve and assist users in searching for and locating evidence within the library's materials. There is also an expectation that library staff participates in training programmes intending to improve the quality of the services they provide. Finally, the library is expected to allow Internet access to its community in order to fulfil its role as an information centre.

A Study on the Registration of Professional Rights of Graduates of the Department of Archiving and Librarianship of the Ionian University[50]

The professional rights of the graduates of the Department of Archiving - Librarianship have been registered by the Supreme Personnel Selection Council (ASEP PD 50/2001 Government Official Gazette 39 Aʹ "Determination of qualifications for appointment to positions in Public Sector bodies" - Annex BD_Codification Of the Presentation) in which the article concerning the Higher Education

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[50] Ionian University, Career Office of Ionian University, Department of Archiving and Librarianship of the Ionian University, A Study on the Registration of Professional Rights of Graduates of the Department ofArchiving andLibrarianship of the Ionian University, (2013), pp. 7-10

branch was amended in regards to Librarians (Article 10) and in addition it was stipulated that the qualifications of the Higher Education graduates in Archiving are covered by Article 3 (1).Consequently, it was stipulated that for the positions of Higher Education graduates in Librarianship are considered only the graduates of Ionian University-Department of Librarianship and Archivism or graduates of equivalent foreign universities.

However, the Article 22 of the Law 1946/1991 (Government Official Gazette 69/14-5-1991, Vol. A) which states that graduates from other higher education institutions such as philosophy, with at least one year of postgraduate training and sufficient knowledge of at least one foreign language can also work as well in libraries and archives, has not been amended.

Moreover, graduates of the philosophical or legal department of Law school, who do not have retrained in a special archival school, but have already completed three years of archival service or postgraduate training in medieval or modern history can also be selected for the position of archivist after the deliberation of the Ephorate of G.A.K. (General Archives of the State), regarding their suitability, according to which will take into account the knowledge of at least one foreign language ". This legislation creates a big problem to graduates of the Department of Archives - Librarianship, in terms of their employability. The latest legislative changes in the public sector are exacerbating this problem of professional establishment of Archiving -Librarianship graduates:

1) With the Law 4024/2011 (Government Official Gazette 226 / 27-10-2011, Vol. A') "Pension arrangements, single payroll - score, work reserve and other provisions of its application on a medium-term fiscal strategy framework 2012-2015" public organizations are obliged to abolish the vacancies created by the retirement of their employees. The same also applies to the General Archives of the State, which represents the only body with undoubtedly the most Jobs for Archivists, and in which the 101 vacancies are to be abolished for Archivists positions throughout Greece. This means that it is not to be scheduled an appointment of other librarians or archivists, except for the few who were appointed from 2004 to 2008.

2) In the last bill for the "Disciplinary Law of Public Political Administrations Employees and Employees of Public Law Entities" there is an additional amendment that allows and promotes the possibility of transferring employees to a different public service position than the one they are occupying now following their request. This legislation is just as threatening for the sector of Librarians and Archivists, since in the General Archives of the State (GAK) as well as in Public and Municipal Libraries have been serving for a number of years, employees from various other services, mainly teachers, who will now by law fill the permanent positions in these institutions as Archivists and Librarians if they wish to do so.

Although the specialty of Archivist - Librarian, is so important nowadays with all this "informational chaos", unfortunately the required attention has not been given by public and private bodies, resulting in unemployment prospects for Librarian and Archivists. Actions to secure the professional rights of the graduates of the Department are made both by the Department of Archiving and Librarianship as well as by the Union of Archivists and Librarians of Greece. The profession of Archivist -Librarian is especially important in today's Information Society, where the proper organization and use of information as well as a valid and timely service is essential to any creative activity. Unfortunately, however, in Greece exists the notion that this can be done by any graduate of Secondary or Tertiary

education, with the result being that many jobs in the sector are not covered by Graduates of the Department situation that breeds informational chaos, especially within the public bodies.

Both the Department of Archiving - Librarianship and the Association of Archivists - Librarians of Greece are in complete knowledge of the real situation and are constantly taking action in order to ensure a better professional future for the graduates of the Department since the reason for the existence of university departments should not be just to perfect the scientific knowledge and training of students but also the registration of professional rights and the ensuring of a professional perspective for their graduates.

The work role

Under this category, Gerolimos stresses that different professional approaches are not what constitutes different working roles[51]. Rather, it is a change in working conditions which asks librarians to be flexible towards their users and their work tools. It is likely that they will keep a "traditional" role within various sections of a library while also answering user needs in a multifaceted information environment. As there are a wide number of sources available and users have different levels of ability, librarians specialise in different roles to support this search for information. In order to specialise, a librarian will have to develop new skills through different qualifications. This should be combined with technological and interpersonal skills to create a librarian equipped for the future.

Gerolimos identifies that while users may turn to librarians for research support, this is usually after they have attempted to search by themselves and need the librarian to mediate their search[52]. This would imply that Greek librarians must not only understand technological changes and where to find digital sources, but they must also have the customer service skills and pedagogical skills needed to assist their users in a digital world.

The professional role

Modern professional roles for librarians show a relative ambiguity. When we consider the terminology employed in the library sector, this terminology tries to predict the professional reality without being a reflection of daily tasks performed by librarians. In lieu of proposing terminology changes which do not reflect a technological change or a function change, Gerolimos[53] suggests that the terms "librarian" and "information professional" are sufficiently broad to cover the work performed by professionals within the library and information sector until a significant shift occurs.

The impact of the digital transformation

In an attempt to determine and understand the changes that the profession is experiencing and, mainly, in order to analyse the data that will lead the profession into the next century, various types of forecasts, analyses and proposals for the future profession of librarians are being published with a view to determine and record the qualifications and the dexterities that an information professional in the library of the future will have, or to better phrase it, should have.

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[51]ibid
[52]Ibid
[53]Ibid

Gerolimos and Konsta have examined this and provide a discussion, that has been carried out in the last years, on the role and the operation of libraries under the transformation of the informational, and more generally, the social environment[54]. This is mainly after the appearance of the World Wide Web and the exploitation of possibilities in computer science and communications. Thus, they define the skills a librarian should have in terms of general and personal skills and map out the diversification of skills between a 1.0 librarian and 2.0 librarian.

Α. ΕΠΑΓΓΕΛΜΑΤΙΚΑ ΠΡΟΣΟΝΤΑ
1. ΕΠΕΞΕΡΓΑΣΙΑ – ΔΙΑΧΕΙΡΙΣΗ ΣΥΜΒΑΤΙΚΟΥ ΥΛΙΚΟΥ
2. ΕΠΕΞΕΡΓΑΣΙΑ – ΔΙΑΧΕΙΡΙΣΗ ΨΗΦΙΑΚΟΥ ΥΛΙΚΟΥ
3. ΠΡΟΣΟΝΤΑ ICT
4. ΠΡΟΣΟΝΤΑ ΔΙΟΙΚΗΣΗΣ – ΟΡΓΑΝΩΣΗΣ
5. ΕΚΠΑΙΔΕΥΣΗ
6. INFORMATION LITERACY

Α1. Επεξεργασία – Διαχείριση Συμβατικού Υλικού
✓ Αυτοματοποιημένα Βιβλιοθηκονομικά Συστήματα
✓ Επεξεργασία Υλικού – Διαχείριση Συλλογών
✓ Εμπειρία στην επιλογή, πρόσκτηση και επεξεργασία συμβατικού υλικού
✓ Διαχείριση συλλογών περιοδικών εκδόσεων

Figure 6 - Professional skills of a librarian and collection processing and management (Gerolimos and Konsta, undated, 3)

The translation of these tables is detailed below:

A. Professional skills of a librarian
1) Material management
2) Digital material management
3) ICT skills
4) Administration
5) Education
6) Information literacy

A1 Collection processing and management
1) Automated library systems
2) Material processing – collection management
3) Experience in selecting, acquiring and processing conventional materials

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[54]Gerolimos, M. and Konsta, R., n.d. The Role And Function Of The Librarian In A Contemporary Information Service. [ebook] Ionian University. Available at: <https://lekythos.library.ucy.ac.cy/bitstream/handle/10797/11476/16psab023a.pdf?sequence=1> [Accessed 22 April 2020].

Title:	**Librarianship in Europe – mapping professional needs**			
Authors:	Tiana Zignani / PL2030, Flavia Massara / ICCU, Aneta Doncheva, Spaska Tarandova / GLBF, DAISSy Research Group / HoU, Baiba Holma, Daina Pakalna / KISC			
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4) Managing collection of periodicals

A2. Επεξεργασία – Διαχείριση Ψηφιακού Υλικού
- ✓ Εργαλεία Μεταδεδομένων
- ✓ Δημιουργία και διαχείριση Βάσεων Δεδομένων
- ✓ Αξιολόγηση πληροφοριακού υλικού, πηγών και υπηρεσιών στο Διαδίκτυο – Δημιουργία Συλλογών
- ✓ Γνώση χειρισμού πληροφοριακών πηγών σε διαφορετικούς τύπους αρχείων – Πολυμέσα
- ✓ Γνώση τεχνικών ψηφιοποίησης
- ✓ Δημοσίευση σε ηλεκτρονικό περιβάλλον

Figure 7 - Digital material management and processing with translations below (Gerolimos and Konsta, 2011, 3)

The translation of this table is detailed below:

A2 Digital material management and processing
1) Metadata tools
2) Creating and managing databases
3) Evaluation of information material, sources and services on the internet – creation of collection
4) Knowledge of how to handle information in different file types – multimedia
5) Knowledge of digitisation
6) Publication in an electronic environment

Β. ΓΕΝΙΚΑ ΠΡΟΣΟΝΤΑ
1. ΠΡΟΣΩΠΙΚΕΣ ΙΚΑΝΟΤΗΤΕΣ
2. ΔΙΑΠΡΟΣΩΠΙΚΑ ΠΡΟΣΟΝΤΑ
3. ΕΜΠΕΙΡΙΑ
4. ΔΙΑ ΒΙΟΥ ΜΑΘΗΣΗ – ΕΚΠΑΙΔΕΥΣΗ
5. INFORMATION LITERACY

Β1. Προσωπικές Ικανότητες
- ✓ Ατομικά χαρίσματα
- ✓ Κριτική σκέψη - ικανότητα
- ✓ Επιμονή στη λεπτομέρεια
- ✓ Ικανότητα επίλυσης προβλημάτων
- ✓ Προσωπικό μάρκετινγκ
- ✓ Δεοντολογία και κοινωνικές υποχρεώσεις
- ✓ Επιχειρηματική οξυδέρκεια – Οικονομικά προσόντα

Figure 8 - General skills and personal skills with translations below (Gerolimos and Konsta, undated, 8)

The translation of these tables is detailed below:

B. General skills
1) Personal skills

2) International skills
3) Experience
4) Lifelong Learning
5) Information literacy

B1. Personal skills

1) Critical thinking ability
2) Persistence
3) Problem solving skills
4) Personal marketing
5) Ethics and social obligations
6) Entrepreneurship – financial obligations

Alongside these skills, Greek librarians, like many other professionals, should be able to apply lifelong learning on their careers. This means, they should be able to:

- Plan ahead in regard to their personal career
- Learn quickly and consistently
- Be familiar with the current developments in science
- Always be informed on the current developments in ICT

Thus, while there is an emphasis on a traditional skillset by Gerolimos and Konsta, they also acknowledge that librarians must be future-facing and must reassess how they can fit within a changing information landscape.

Figure 9 - Acquisition of information literacy skills (Gerolimos and Konsta, undated, 11)

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Gerolimos and Konsta identify, above, the process in which librarians acquire information literacy skills. This starts from their professional experience, qualifications and lifelong learning. During their work, they must:

- Assess information needs
- Identify the location
- Have strategies for identification
- Evaluate access to information
- Organise the composition
- Educate
- Disseminate

This shift in means of information from physical to digital leads us to the differentiation of service. Gerolimos and Konsta have broadly illustrated this below. The library moves from public email services, frequently asked questions, and the typical use of printed and electronic collections lists to a live audience service, using instant messaging tools, RSS feeds, blogs and wikis and creating a personalised user interface. Thus, the focus changes from general and untargeted communication to user-focused communication.
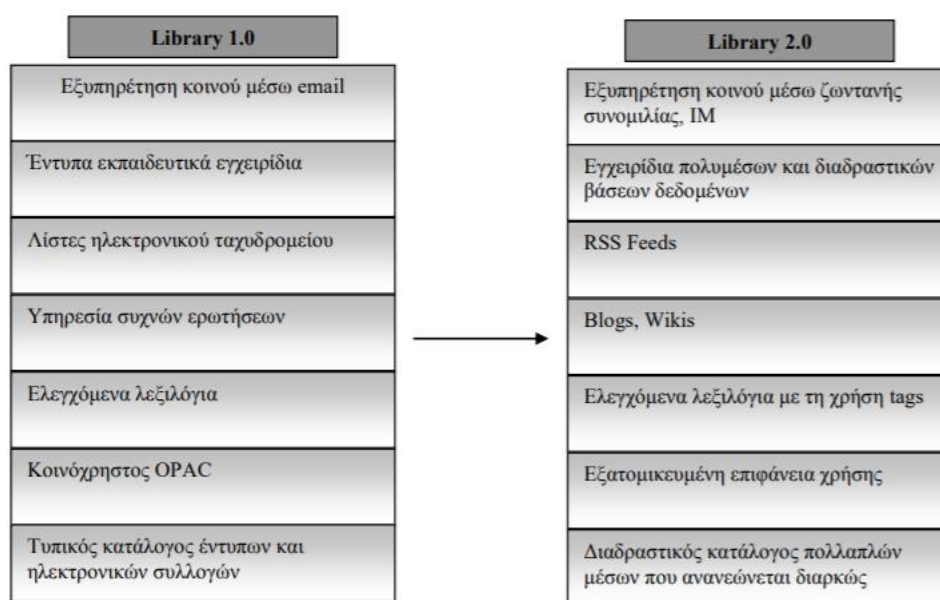
Figure 10 - Librarian 1.0 and Librarian 2.0 (Gerolimos and Konsta, undated, 13)

Gaitanou has also explored how information technology has brought about a revolution in the information sector[55]. With the advent of the age of electronic information, the use of printed material often proves insufficient. This has led to the gradual transformation of librarians into Information

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[55] Gaitanou, P., 2014. The Profile Of The Librarian (Greek Reality And International Trends) And Professional Prospects In Greece.

| Title: | **Librarianship in Europe – mapping professional needs** |
| Authors: | Tiana Zignani / PL2030, Flavia Massara / ICCU, Aneta Doncheva, Spaska Tarandova / GLBF, DAISSy Research Group / HoU, Baiba Holma, Daina Pakalna / KISC |

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Scientists and Digital Knowledge Managers. The core of the profession remains the same with the main tasks being cataloguing, classification, indexing, user training etc. It is not the purpose that changes but the means. Traditional skills are reassessed and valued by their application to the new information environment and are enriched by the role of the librarian as a mediator in the search for information and knowledge management.

Thus, the modern librarian must be able to:

- Solve all users' information problems
- Train users regardless of intelligent interfaces and search engines
- Possess organisational methods for information and search strategies in a variety of topics
- Have a more substantial role in the process of creating information
- Have collaborations with IT professionals in the tasks of designing, organising, developing and maintaining digital repositories, interfaces, networks and network documentation
- Have constant contact with new technologies and to closely monitor the developments in the information science sector while at the same time adapting already existing knowledge to new technological data

Challenges in the Greek library sector

Greece has various categories of libraries in service of the general public, e.g. public, municipal, community, cultural and scientific libraries as well as libraries addressed to comparable audiences: academic, research, hospital, school, children libraries and of course the national library.

A common problem in the operation of libraries in Greece is the extremely limited or, in some cases, non-existent functional cooperation between those institutions[56]. There is also a lack of cooperation in the creation of Digital Collections that are being developed by Libraries, Archives and Museums. The need for coordinated operation of the Libraries has long been recognized. The provisions made in 1931 and 1949 for the coordination of the Libraries, with the establishment of the General Council of Libraries had little effect in the development of a National Library System. The legislation in force today (the Law 3149/2003) defines in detail the operation of Public Libraries but without linking them to Libraries of other categories in order to ensure the provision of Library services throughout its country's population.

Policy fragments are scattered in Laws and Ministerial Deliberations, but they do not form nor constitute national policy. So far, the extremely limited collaboration between Libraries and their fragmented operation is characteristic in our country, with negative results such as:

- large overlaps in collections,
- non effective management of human and financial resources;
- uneven spatial distribution;
- limited use of National and Community resources

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[56] Zachos, G., 2011. National Libraries Policy – Conference on National Policy Making for Archives and Libraries. In: Conference on National Policy Making for Archives and Libraries. [online] Available at: <https://lekythos.library.ucy.ac.cy/bitstream/handle/10797/12517/23teuxos010.pdf?sequence=1&isAllowed=y> [Accessed 22 April 2020].

- Low level of service

The General Council of Libraries proposes a national policy for libraries[57] that should among others:

1. Provide for the creation of a national library system, which will consistently include all libraries receiving public resources
2. Assign to libraries roles related to economic, social, cultural, educational, administrative conditions
3. Provide for the administrative structure and supervision of the system to ensure its overall effectiveness and homogeneous service delivery
4. Establish performance monitoring and measurement mechanisms as well as supervisory structures and control
5. Distribute responsibilities and obligations to the State and local government for the development and operations of libraries
6. Impose the collaboration of libraries with institutions related to books and information

Alongside this proposal for a national policy for libraries, Kyriakopoulou has suggested the areas in which Greek municipal libraries should develop their potential, namely in[58]:

a. The development, processing, distribution, dissemination, maintenance and promotion of their material
b. Addressing the needs of citizens by providing modern and innovative services, formal education, lifelong learning, professional information and information to citizens.

Tsimpoglou has also identified key issues in the Greek public library sector[59]. These include:

- Common features (missions, local vs subject character, user group information needs, users-citizens, similarities in their book and material collections, relations with the elected authorities and the corresponding ministries)
- Common problems (neglect, chance, necessity and priority, lack of vision, institutional frame, infrastructure, equipment, internet presence)
- Common weaknesses (occasional communication among homologous entities and people, absence of a forum for expressing views and a mechanism for promoting solutions, lack of coordination of common cations, guidance and central support, sense of community
- Emphasis on common perspectives (Union Catalogue and contribution to the central cataloguing service, complementarity on digitisation actions, provision of information literacy and preparation of the digital citizen, integration in the local information society, accessibility at a national range)

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[57] Ibid
[58] Kyriakopoulou, C., n.d. The System Of Municipal Libraries As An Active Component Of The National Network Libraries. [ebook] Available at:
<https://pdfs.semanticscholar.org/e238/783eff41da366b7255c645d2cce855d03708.pdf> [Accessed 22 April 2020].
[59] Tsimpoglou, F., 2008. The potential of the Municipal Libraries in a system of a national policy for Libraries through cooperation actions. [online] Available at: <http://eprints.rclis.org/14858/> [Accessed 22 April 2020].

However, Tsimpoglou proposes that the solutions to these issues are often at the individual level[60]. It is more feasible that the solutions proposed would be operational through cooperation and coordination among public libraries as well as other types of libraries in Greece.

There have also been considerable efforts in the Greek academic library sector to develop systems which harmonize collections and the management of these[61]. However, economic constraints have continuously and continue to put pressure on the sector[62]. As a consequence, Greek academic libraries are often understaffed[63] which can lead to a lack of or a low motivation to acquire new skills and responsibilities if all human resources in a library are already operating at their maximum capacities.

Users' perceptions of the benefits of ICT in Greek public libraries has also been studied by Quick, Prior, Toombs, Taylor, and Currenti[64]. Public Access Computer (PAC) usage in Greece was notably low, however, the justification for not using PACs was that Greek users felt they had nothing to do with a computer (ibid, 17). This presents an opportunity for Greek public libraries to equip users with the digital skills needed to use a computer as we move towards a digitised society. Furthermore, of those using PACs, they were motivated by this free service to come into their library and use a computer[65].

Despite the challenges faced by the Greek library sector, there has been a move to create digital libraries. This initiative would see the creation of a collection of electronic journals of Greek libraries, prevalent tendencies, economic, technical and institutional variables[66]. Digital libraries would also

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[60] Ibid

[61] Zachos, G. and Polychronopoulos, V., 2015. The impact of Heal-link in bibliographic support of research at Higher Education Institutions. HEAL Journal, [online] Available at:
<http://healjournal.seab.gr/ojs/index.php/hli/article/view/54/10> [Accessed 22 April 2020];
Tsimpoglou, F., 2006. Collective Catalog of Academic Libraries. From the challenge of implementation to the challenge of the extension of functions, services, creators and users. [online] Available at:
<http://eprints.rclis.org/8918/> [Accessed 22 April 2020].

[62] Georgiou, P., 2012. Growth Opportunities In Times Of Crisis: The Case Of The University Of Patras Library & Information Center. [ebook] Piraeus University. Available at:
<https://lekythos.library.ucy.ac.cy/handle/10797/11028> [Accessed 22 April 2020];
Theodorika, E., 2017. The Management Of Academic Libraries: The Trends In The Years Of The International Financial Crisis.. Masters. TEI Epirus, School of Management and Economics, Department of Accounting and Finance;
Vardakosta, I., 2015. The response of Financial Libraries at the challenges of the times. *HEAL Journal*, [online] Available at: <https://lekythos.library.ucy.ac.cy/handle/10797/14908> [Accessed 22 April 2020]

[63] Gkoutsidou, M., 2010. Improving The Organizational Climate And Skill Level For Greek Academic Librarians. Masters. International Hellenic University.

[64] Quick, S., Prior, G., Toombs, B., Taylor, L. and Currenti, R., 2013. Users' Perceptions Of The Benefits Of ICT At The Public Libraries In Greece. [online] The Bill & Melinda Gates Foundation. Available at:
<https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/24019/TNS_Greece_Greek.pdf?sequence=1> [Accessed 22 April 2020].

[65] Ibid,21

[66] Tsimpoglou, F., 1998. The "necessary good" of the digital libraries. In: Concortia of Hellenic Libraries. [online] Available at:
<https://www.researchgate.net/publication/28804331_Koinopraxies_Ellenikon_Bibliothekon_To_anankaio_kalo_ton_psephiakon_bibliothekon> [Accessed 22 April 2020].

require a framework of positions and rules for a feasible and reasonable policy on the coordinated development of the national collection of electronic journals[67].

Thus, we can see that there is a great need for coordination in the Greek library sector as well as a development of specialised activities and functions for different types of libraries. Despite the economic challenges faced by the Greek library sector, there are opportunities for training within the sector. According to Gkoutsidou, academic librarians need more training and development to be more motivated[68]. As human resources are limited in this sector, library directors need to acquire competences in human resource management in good communication, understanding employment legislation and their employees' needs, providing good working conditions and improving on existing ones, and providing extra training for librarians to motivate and inspire their employees[69]. Tsalaptani and Kalogeraki also examined the training needs of Greek health sciences librarians and found that a specialisation in health sciences was needed as well as continuous training in new technologies, health science databases, and medical information resources, and training in acquiring effective methods to train users[70]. Furthermore, librarians included in this study indicated a preference for distance learning. Sioula and Garoufallou found that there was a need for the assessment of continuous professional development programmes organised by libraries[71]. Indeed, as Sioula found, training is often provided on the job by a senior librarian without support from the Greek national government[72]. Coupled with the demand for new skills, Greek librarians are confronted with the need to acquire a wide variety of skills without having an adequate national support structure. From this, we can assume that pedagogical skills are needed by Greek librarians to not only educate users but also other colleagues as well as specialisations in the activities of each type of library. Higher level profiles need to be well trained in human resource management due to the economic constraints the Greek library sector faces.

Training provisions
Formal training provisions

According to the current legislation of the Ministry in Charge (Greek Ministry of Education and Religious Affairs), all the educational programmes identified are characterised as formal education. These were: three bachelors, three masters and two postgraduate doctoral degrees. In the Curriculum of the aforementioned study programmes except formal librarian skills, digital skills such as "Introduction Digital Libraries", database management, and computer skills have been included.

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[67] ibid

[68] Gkoutsidou, M., 2010. Improving The Organizational Climate And Skill Level For Greek Academic Librarians. Masters. International Hellenic University.

[69] ibid

[70] Tsalapatani, I. and Kalogeraki, E., 2010. Training needs of the health sciences librarians in Greece. Journal of the European Association for Health information and Libraries, [online] 6(4), pp.10-14. Available at: <http://repository-asklepieio.ekt.gr/asklepius/bitstream/11642/34/1/Tsalapatani.pdf> [Accessed 22 April 2020].

[71] Sioula, A. and Garoufallou, E., n.d. Employee training survey at Higher Education libraries and recommendations for internal training evaluation and optimization programs. [online] Available at: <http://17conf.lib.uoi.gr/files/b5.2.Sioyla.pdf> [Accessed 22 April 2020].

[72] Sioula, A., 2007. Training Of Library Executives. Undergraduate. University of Macedonia.

It is interesting to note that for many of these qualifications, workplace learning is not required. Only three programmes listed it as an optional course of action.

Non-formal training provisions

No non-formal education opportunities have been identified in Greece despite there being a legal requirement for librarians to partake in training programmes. This presents an opportunity for the BIBLIO project to create a tailored non-formal learning programme for the Greek library sector.

Job vacancy analysis

Ten job vacancies – public and private alike – were identified in total indicating a low demand and high competition in Greece. The low number of job vacancies for the sector can be attributed to the economic recession that Greece is still recovering from. Furthermore, every year, fewer students select library studies and therefore the number of freshmen students is decreasing. Consequently, the same happens to the number of alumni. Both the aforementioned reasons give an integrated overview for the reason why the number of job vacancies is very low.

The job vacancies identified concerned mainly the role of "librarians", however, employers requested several qualifications in other fields such as graphic design, social media knowledge, soft skills and in one case physical capacity. There was also a high demand in all job vacancies of basic computer skills and general digital skills.

IV. Italy

Regulatory framework, policies, and strategies

Law 4/2013: Provisions on non-organised professions

The world of Italian libraries is a complex system of several institutes not regulated by a unique national law. The librarian profile instead, has recently obtain more recognition at the national level with the Law no. 4/2013 "Provisions on non-organised professions" and the Legislative Decree no. 206/2007 which legitimizes library associations. This law recognises librarian profile as an intellectual job and their volunteer association, AIB, Italian Libraries Association, as a way for professionals to be recognised and to offer their attested experience to users and employers, thus also protecting those who use their services and those who have to choose human resources. The identification of the profession, therefore, does not imply the creation of an ordinary register (as for example Bar Association) but calls professional associations to certify the standards of professional qualification for their members. Requirements for becoming an AIB member librarian are as follows:

- Bachelor's degree in librarianship, PhD or other post-graduate degree in librarianship;
- Non-specific degree, together with one or more professional training courses for librarians with final evaluation, of a total duration of at least 100 hours of teaching, or at least 2 years of documented professional experience, including non-continuous professional experience, provided that this experience covers the last 5 years.

The panorama of the associative base is varied and there are valuable professionals who do not have the qualification of the degree, the association has fought for them to have a transitory norm that allows those who practice the profession and are updated to obtain the attestation anyway.

UNI11535:2014 A standard for librarians

Law no. 4/2013, art. 6, clause 2 stipulates that professional qualification must be compliant to UNI ISO, UNI EN ISO, UNI EN and UNI rules.

Another important step for librarian profession is the national standard of the job profiles, described by the UNI: UNI11535:2014 "Qualification of professions for data and documents processing - Professional figure of the librarian - Requirements of knowledge, skills and competence". UNI is the Italian National Unification, a private non-profit association founded in 1921 and recognized by the State and the European Union. UNI studies, elaborates, approves and publishes voluntary technical standards in all industrial, commercial and tertiary sectors. UNI has represented Italy in the European Standardisation Organisations (CEN) and worldwide (ISO).

The UNI standard recognizes:

- Intellectual profession of librarians regardless of different organizational contexts (public, private);
- Lifelong learning as a necessary activity for the profession;
- Tasks and related knowledge, skills and competences of librarians and their comparison with levels 6 and 7 of the EQF.

The tasks that the librarian performs can be summarized in:

- Collection management (acquisition, inventory, cataloguing and preservation);
- Provision of services (including access, consultation, lending, reproduction, library promotion, implementation of information literacy and cultural promotion programmes);
- Analysis of the users' information needs;
- Scientific activities of study and research in the field of Library and Information Science.

It should be noted that all UNI technical standards must be systematically reviewed. Usually the procedure provides a revision every five years, but in the case of standards profession, a three-year revision has been set by UNI, nevertheless the new version is not still widespread.

List of cultural professionals of the Ministry of Cultural Heritage and Activities and Tourism – MIBACT

In 2019, with Ministerial Decree no. 244/2019, Italian Ministry of Cultural Heritage and Activities and Tourism, MIBACT, created professional lists for some cultural heritage jobs like librarian, archivist, archaeologist. Librarian is an unregulated profession, so the lack of registration on the Ministry's lists does not prevent people from practicing the profession.

The ministry list includes three levels for librarian job profile, all compared with CP2011 ISTAT 2.5.4.5.2 - Librarians and ATECO 91.01.00 - Library and archive activities:

- Librarian I - EQF Level 8
- Librarian II - EQF Level 7
- Librarian III - EQF Level 6

Requirements to become a MIBACT list member:

Librarian I - EQF Level 8

Traditional four-year degree or master's degree with at least 24 credits - or at least 4 exams - in library science, bibliography, book and document disciplines or related disciplines and in any case connected to knowledge provided in description job profile tables or at least 100 hours of specific training provided by qualified subjects and with at least 18 months, even non-continuous, of professional experience (including training placements and internships both curricular and extra-curricular and activities carried out under the freelance regime) in one of the activities characterizing this level, plus diploma of specialization or second level university master or PhD in library science, bibliography, book and document disciplines or related disciplines and in any case connected to knowledge provided in the following tables or diploma issued by the Vatican School of Library Science (two-year course).

or

Traditional four-year degree or master's degree with at least 24 credits - or at least 4 exams - in library science, bibliography, book and document disciplines or related disciplines and in any case connected to knowledge provided in description job profile tables, or at least 100 hours of specific training provided by qualified subjects and at least five years of professional activity after passing public competition as a librarian.

or

Traditional four-year degree or master's degree with at least 24 credits - or at least 4 exams - in library science, bibliography, book and document disciplines or related disciplines and in any case connected to knowledge provided in description job profile tables or at least 100 hours of specific training provided by authorized persons and at least seven years of carrying out one of the activities characterizing this range.

Librarian II - EQF Level 7

Traditional four-year degree or master's degree with at least 24 credits - or at least 4 exams - in library science, bibliography, book and document disciplines or related disciplines and in any case connected to knowledge provided in description job profile tables or, in addition to the degree, at least 100 hours of specific training provided by qualified subjects or the diploma issued by the Vatican School of Library Science or held at Institutes of the MIBACT and with at least 18 months, even non-continuous, of experience (including training and internships both curricular and extra-curricular and freelance activities) in one of the activities characterizing this range.

Librarian III - EQF Level 6

Traditional four-year degree or master's degree with at least 24 credits - or at least 4 exams - in library science, bibliography, book and document disciplines or related disciplines and in any case connected to knowledge provided in description job profile tables or, in addition to the degree, at least 100 hours of specific training provided by qualified subjects or the diploma of the Vatican School of Library Science or held at Institutes of the MIBACT and with at least 18 months, even non-continuous, of professional experience (including training and internships both curricular and extra-curricular and freelance activities) in one of the activities characterizing this range.

Although the requirements of the MIBACT list are very detailed and have multiple combinations, the procedure for registering on this list is simplified for AIB members, as they are already recognized as professionals.

General strategies

Minister for Innovation - Italy 2025

An initiative that focuses both on digital skills and on sustainability has been launched by the Minister for Innovation.

"Italy 2025" is based on three main challenges, identified from the United Nations Sustainable Development Goals (SDGs). The three challenges are:

- A digital society, where services put citizens and businesses at the centre, are efficient, easy to use and integrate. A goal to make digitisation an engine of development for the whole country and rethink the relationship between the state and people.
- An objective of innovation, which focuses on applied research and development, encourages the proliferation of ideas, which become Italian hi-tech companies and support the traditional production chains of our country.
- Sustainable and inclusive development, where innovation is at the service of people, communities and territories, with respect for environmental sustainability.

These three challenges have been outlined in twenty innovation and digitisation actions to be carried out with other Ministries, central and local public administrations, public bodies, agencies, private companies and ordinary citizens. At the moment, the planned activities on updating the skills of the staff of public bodies do not include specifications for librarians and even the project of digital inclusion for the elderly does not mention the library institution.

Librarian strategies

Ministry of Education, University and Research: Action #24

One important step toward digital direction is "Action #24 - School Libraries like literacy environments to the use of digital information resources" that involved Italian school libraries.

This initiative is part of the National Digital School Plan and aims to promote at a local level the creation of networks of schools that complete or create new school libraries capable of acting as documentation and information literacy centres, also open to the surrounding area and citizens, in which to multiply the opportunities to promote writing and reading experiences, also with the help of technology and the web. The initiative that rewarded the most innovative libraries projects with targeted funding wanted to achieve a precise objective: to provide schools with the conditions to return to being centres of lifelong learning and places of cultural growth.

The Action #24 focused more on libraries than on librarian competences. It is also important to point out that in school libraries the figure of the librarian is not a regulated figure: this role is played by "unsuitable teachers", e.g. they are dispensed from teaching for health reasons but used in other duties, including library duties (Presidential Decree 417/1974 and subsequent provisions).

AIB surveys for training needs

Italy 2025 and Action #24 don't focus their attention on the librarian digital skills, but they focus more on all society and school libraries environments. Regarding librarian competencies, it is important to cite two specific observatories for the profession created by AIB:

- [Work and profession observatory](#)
- [Training observatory](#)

In 2012, 2014 and 2018 the Training Observatory carried out surveys to investigate training needs of AIB members and other librarians for the quality improvement of the training offer. The questionnaire is composed of a small number of questions and divided into a list of thematic areas that the librarian or the aspirant must select to communicate what are the main areas of interest in which they would like the association to offer more course training.

Both in the 2012 and 2014 editions, a clear interest in the skills related to digitisation, knowledge, and management of electronic resources emerged. Even in comparison with the 2012 and 2014 data, there is a growing interest in these issues (also including all online services).

AIB used the survey technique with both closed and open questions, the latter is useful for the interviewed to provide suggestions and advices on thematic areas of interest for new training courses not included in the closed questions lists.

ISOB Observatory survey on competences and training needs[73]

In 2019, another survey was carried out by the ISOB Observatory (Innovation and Organisational Development for Libraries public, University of Milano-Bicocca). It focused on self-assessment of prior knowledge and training needs, on methods and tools preferred to acquire new skills and librarians' level of motivation regarding their job.

Data were collected by means of seven focus groups and a structured questionnaire directed to the staff of public libraries in 11 Italian Library Systems.

The results highlight the importance of being able to cope with the continuous change caused by digital transformation, depletion of human and economic resources and new users' behaviour.

What emerges from the survey is the need to address the challenges of change with new skills:

- to know how to deal with change and support others - colleagues and users;
- interpersonal skills in order to communicate effectively with users and non-users in an increasingly multicultural society, both to work as a team and to collaborate with territorial stakeholders;
- design skills as change is perceived as inevitable and ongoing;
- pedagogical skills because librarians increasingly play the role of educator and facilitator;
- digital, marketing and communication skills.

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[73] Adriano Solidoro, Ilenia Bua, Camelia-Irina Caldarusa, *Quale futuro? Il fabbisogno formativo dei bibliotecari*, "Biblioteche Oggi", 38, (2020) marzo, p. 19-31.

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The ISOB Observatory proposed a real "skills strategy", a shared scenario for the whole library community and in a top-down perspective: to co-design their general potential competences, then create competence profiles for each job/role and describe each of these competences and behaviours connected to them. After the survey, the next step should be the planning of activities and, at the end, no less necessary are the definition activities of a measuring, testing system and validation of the competency model and formal assessment. ISOB survey will be used to design training and organizational development actions in CUBI, Cultures Libraries on the Net.

<u>"Sapere Digitale": a local digital survey</u>

It is also worth mentioning a local case study in the Piedmont region that started in the spring of 2020 with a focus on digital skills. "Sapere Digitale" is a project that offers several innovative digital training courses for librarians and educators about several topics: fake news, social media, digital storytelling, Data Web, MOOC. The project also includes a research phase, with the aim of outlining the digital situation and mapping the situation of digital civic education in Piedmont civic libraries. The research started in March 2020 and will continue until February 2021 and foresees interviews with privileged witnesses, on the basis of which a second phase of research through a questionnaire will be launched. The questionnaire will be administered to the managers of all Piedmont's civic libraries. Finally, an end-of-project questionnaire will be carried out to understand which actions had the best impact on the dissemination of digital civic education in libraries.

The role and challenges of libraries and library professionals

An important National initiative undertaken from a data-driven decision making perspective is the first National survey on libraries launched in 2017 by ISTAT, the Italian National Institute of Statistics with the collaboration of ACT - Territorial Cohesion Agency and NUVAP - Evaluation and Analysis Unit for Council Presidency Programming, MIBACT, Regions, Autonomous Provinces, University of Rome "La Sapienza" and ICCU. The aim of the survey is to create an information system for libraries starting from the Italian Libraries Civil Registry managed by ICCU[74].

As mentioned before, the library system in Italy is often described as a "non-system" because it lacks an overall policy and rules of principle governing the entire universe of Italian libraries, regardless of their type[75]. The data on libraries that will be available in the coming years, thanks to the ISTAT Survey, could be a new starting point for policy makers towards a systematisation of the sector.

The debate on the role of libraries, however, often focuses mainly on the figure of the public library, understood as an institution that welcomes and offers a public information service to general users.

Cultural heritage tradition

The term "Public library" describes precisely an institution created in Great Britain and the United States during the second half of 19th century as an informal education agency to support the classical education system for the working class literacy in the era of the Industrial Revolution. So, the word

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[74] Chiara Faggiolani, Alessandra Federici, Flavia Massara, *Oltre la frammentazione dei dati. Verso un sistema informativo per le biblioteche italiane nel paradigma della sostenibilità*, in *La biblioteca che cresce. Contenuti e servizi tra frammentazione e integrazione*, Atti del Convegno delle Stelline del 14-15 marzo 2019, Editrice Bibliografica, Milano 2019, pp. 294-308.

[75] Luca Bellingeri, *Assetto istituzionale e normativo delle biblioteche italiane in Biblioteche e Biblioteconomia: principi e questioni*, a cura di Giovanni Solimine, Paul Gabriele Weston, Roma, Carocci, 2015, p.91-117.

"public" in that context represented service for the community and supported by the community. In Italy, instead, the public library was born with an erudite imprint marked by the devolution of the heritage of ecclesiastical libraries and from the opening to the public of the court libraries, as such the concept of "public" has long meant the nation's appropriation of library assets and cultural heritage and its preservation as "national good"[76]. Only in recent times has the concept of public library, in the Anglo-Saxon and American sense, as a service for the community been imported into our country.

Finally, it should be remembered that in Italy this particular type of library intended for general users is not regulated by the State but by local authorities, following the creation of the Regions in the 1970s.

<u>The Italian "Cultural Heritage and Landscape Code": Library definition</u>

The last Italian legislation about cultural heritage is the 2004 Cultural Heritage and Landscape Code. The article 101 of the Code define the library, reflecting the vision of an institution primarily aimed as a material structure and place of preservation of cultural heritage:

"Library", a permanent structure that collects (catalogues) and preserves an organized set of books, materials and information, however published on any medium, and ensures consultation in order to promote reading and study.

Library as a public service

<u>UNESCO Public Library Manifesto, 1994</u>

Despite this long tradition linked to cultural heritage, the Italian librarian community is increasingly turning towards public service offered to the community.

The most inspiring document for Italian librarians is [UNESCO Public Library Manifesto, 1994](#) that recognizes the fundamental value of a public library is to provide "*a basic condition for lifelong learning, independent decision-making and cultural development of the individual and social groups*".

The Manifesto thus lists the tasks of public libraries:

- *creating and strengthening reading habits in children from an early age;*
- *supporting both individual and self-conducted education as well as formal education at all levels;*
- *providing opportunities for personal creative development;*
- *stimulating the imagination and creativity of children and young people;*
- *promoting awareness of cultural heritage, appreciation of the arts, scientific achievements and innovations;*
- *providing access to cultural expressions of all performing arts;*
- *fostering intercultural dialogue and favouring cultural diversity;*
- *supporting the oral tradition;*
- *ensuring access for citizens to all sorts of community information;*
- *providing adequate information services to local enterprises, associations and interest groups;*
- *facilitating the development of information and computer literacy skills;*

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[76] Paolo Traniello, Storia delle biblioteche in Italia. Dall'Unità ad oggi, Carocci, Roma 2014.

- *supporting and participating in literacy activities and programmes for all age groups and initiating such activities if necessary.*

The public library is recognized as an institution of inclusiveness, equality and democracy.

AIB - Relaunch Italian public libraries. Programming document, 2001

AIB, Italian Library Association addresses this programming document to local authorities representatives (Mayors, Regions, Provinces) and their associations to relaunch a common vision for Italian public libraries. Priorities defining by the AIB are the following:

- to individuate and delineate a model for the public library service, which has not yet found a definition accepted and shared throughout the nation;
- to define library role in contemporary times and to determinate its social purpose;
- to embrace cooperation as a philosophy and working method to optimize resources and achieve better results;
- to ensure the presence of experienced librarians with recognised competencies for quality management;
- to finance the library sector to achieve these objectives.

AIB - Information Literacy Manifesto, 2016

The origin of the term "information literacy" dates back to 1974, when Paul Zurkowski, president of the Information Industry Association, sensing the changes taking place in society, stated in a report that workers should become "information literate": people capable of using multiple sources of information to solve problematic situations[77]. The ability to manage information was becoming a fundamental issue in the world of work and was already evident, therefore, long before the Internet and the Web became established.

In 2016, the Information Literacy AIB group, published on their website the Information Literacy Manifesto to define the concept of "information literacy", to clarify its meaning, its actions and its fundamental role for active citizenship. Among the institutions responsible for supporting information literacy activities, libraries also play a role. In this declaration we can imagine one of the new possible developments of Italian libraries.

Libraries in their different types (public, school, academic, national, local authority, etc) facilitate access to information and knowledge and improve the communities in which they operate by offering support and empowerment. They can also produce, validate, publish information.

In this framework they are dedicated but not exclusive places for Information Literacy activities and good practices. They, starting from their collections, from the specific librarians' skills and the needs expressed by the communities they serve, can effectively promote a culture of Information Literacy

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[77] Zurkowski, Paul G., *The information service environment relationships and priorities,* Washington, National Commission of libraries and information science, National program on library and information services, 1974: <http://www.eric.ed.gov/PDFS/ED100391.pdf>.

and activities to promote awareness of the balance of the information ecosystem, in which we all participate.

<u>AIB - New Manifesto for Digital Libraries (draft), 2020</u>[78]

In May 2020 AIB published on its website the new draft version of the Manifesto per le Biblioteche Digitali for an open review. The first version of this document was written in 2005 and was based on the concept of *conversation*. Starting by the retrieval of this concept, the new version addresses the definition of digital libraries outlining some principles, models and functions. The Art. 17 of the "Principles" section states clearly the need to renew the role of librarians providing them with digital knowledge and skills:

"*In digital libraries, as in other productive sectors, the work of librarians cannot be reduced to a set or a sum of tasks, so there are no robots that can replace them.*

On the contrary, librarians carry out multiple activities, variously connected to the digital life cycle, which often cross the boundaries of individual disciplines and sectoral skills, and which require high specialization. It is therefore necessary to encourage not only the recruitment of personnel with new skills but also, through continuous professional training, the acquisition by the staff in service of the knowledge that, in the changed information ecosystem, allows to rethink the services offered and the design of new ones. Digital libraries therefore have a role to play in the development of highly qualified employment opportunities within the cultural labor market."

This principle is briefly taken up again at the beginning of the Art. 25 in the "Model" section, but the overall document underlines how the new role of the digital libraries in the contemporary scenario, especially after the pandemic due to COVID-19, is highly complex and needs a serious rethink of the library professions.

The Manifesto is still in progress, so we think that some more precise references on the training needs of the new library professions will be included.

<u>Sustainable libraries</u>[79]

In September 2015, the United Nations approved the Global Agenda for Sustainable Development (Agenda 2030), which identifies 17 Sustainable Development Goals (SDGs) to be achieved by 2030. The AIB Group for the Implementation of the Sustainable Development Objectives of the UN Agenda (SDGs) recognizes IFLA's position that states that access to information is essential for the achievement of SDGs and libraries can play a strategic role in this process, and collaborates with the Italian Alliance for Sustainable Development (Asvis), which brings together over 200 institutions and bodies committed to raising awareness in Italian society of the importance of Agenda 2030 and the implementation of SDGs. The theme of well-being, no longer measured according to exclusively

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[78] Gruppo di Lavoro AIB per le Biblioteche Digitali, *Nuovo Manifesto per le biblioteche digitali*. <https://www.aib.it/struttura/commissioni-e-gruppi/gruppo-di-lavoro-biblioteche-digitali/2020/82764-nuovo-manifesto-per-le-biblioteche-digitali/?fbclid=IwAR1kjWK1n4weWjAvjC7aF4fuGaETkireq1zGQVOAn2f4kkkxpk4-KzweJzY>.

[79] Morriello, Rossana, *Gli obiettivi per lo sviluppo sostenibile e le biblioteche*. "Biblioteche oggi", 37 (2019) maggio, p. 10-19.

economic indicators, is strongly linked to Agenda2030 and the BES report produced by ISTAT, where libraries are, at the moment, only present as an input indicator, is a goal to aim for to open up the libraries to the outside world[80].

An important document produced by the AIB National Commission Public Libraries in this sustainability framework is Draw the future of the library. Guidelines for drawing up strategic plans[81]. The Strategic Plan is a programmatic document that outlines the steps for the development of a city or an institution and aims to involve the entire community in the strategic planning of the future. The proposed guidelines offer a co-design tool to be used together with citizens and policy makers to outline the changes, the needs of the target community, to measure the impact of the library.

This is the path recently traced for the role of libraries in Italy: trying to measure the impact that this institution has in people's lives in order to improve its actions and to increase social welfare.

Training provisions analysis
Formal training offers

The Italian higher education system presents various levels of qualification for the library sector. The following translations for qualification titles have been adopted:

- Laurea triennale = Bachelor's degree
- Laurea magistrale = Master's degree [accessible with Bachelor's degree]
- Diploma di Specializzazione di II livello = Specialisation degree/Specialisation school (accessible with Master's Degree)
- Dottorato di Ricerca = PhD (accessible with Master's Degree)
- Master Universitario di I livello (accessible with Bachelor's degree) = 1st level Master
- Master Universitario di II livello (accessible with Master's Degree) = 2nd level Master

The website "Universitaly" was consulted for an overview of Bachelor's degrees and Master's degrees as well as other university websites for 1st and 2nd level Master's degrees and Specialisation degrees. The research looks at training offers from 2017 to 2020 with each Bachelor's degree and Master's degree offered every year during the period identified. Post-lauream training offers (1st level Master, 2nd level Master, PhD, Specialisation degrees) may not be available every year of the period covered.

The competences developed in the Italian formal training offers focus on documentary research, understanding cultural heritage and its preservation including digital preservation, bibliography, and IT skills for the workplace. There is also a slight emphasis on problem solving and interpersonal skills in some training offers. Specialised courses such as the "International Master in Digital Library Learning", "Master in digital humanities" and the master in "Creation, management and preservation of digital archives" have a focused offer on digital skills, showing a gradual change in the competences required in the Italian library sector, however, these are exceptions to the general trend in formal training offers.

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[80] Chiara Faggiolani, *Il rapporto Bes – Benessere equo e sostenibile in Italia. Il posto delle biblioteche e il compito della biblioteconomia sociale.* "Biblioteche oggi", 34(2016), pp. 19-26.
[81] The document is available at: https://www.aib.it/wp-content/uploads/2019/05/AIB_CNBP_Linee-guida-3-1.pdf.

Non-formal training offers

The AIB newsletter was the primary source consulted as it collects structured training courses Italian librarians undertake.

There are many non-formal training offers focused on traditional librarian skill sets such as:

- Cataloguing
- Training on tools or specific instruments/materials
- Library-related activities (e.g.: collection development, security in libraries etc).
- Foreign language
- Pedagogical training for teacher-librarians

However, non-formal training offers also cover more recent topics such as:

- Media literacy, fake news, and disinformation including understanding new media systems and curating activities that children and young people can use to understand how to use new information and communication tools
- Reading promotion
- Big data and libraries
- Electronic resources management and cataloguing
- The skills and tools needed for the librarian's attestation
- Innovative libraries and library renovation
- Understanding the digital revolution including acquiring basic digital skills
- Wikimedia, Wikipedia and Wikisource training
- Copyright, licenses and open access

As these are offered by the AIB and they have conducted surveys on the sector, the non-formal training offers are most likely strongly based on the needs identified by the survey. As a result, there is a targeted offer on digital skills whether basic digital skills or specialised skills for the library sector. It is important to note that the AIB is not the sole provider of non-formal training in the Italian library sector, but it provides a majority of training opportunities. The research focuses on their non-formal training opportunities to understand which topics are already covered by a significant actor.

Job vacancy analysis

The AIB newsletter was used for this portion of the desk research as they collect public and private job vacancies across Italy. Internal mobility vacancies and National Civil Service vacancies were not considered unless they were of interest. Overwhelmingly, the most requested profile in the Italian library sector is one of a "library assistant" (also referred to as a librarian). The tasks described in these vacancies do not overtly identify user-focused activities or competences despite needing to promote reading activities and other library events. A few digital-centric profiles were identified, namely a digital library coordinator, data analysts, digital facilitator and digital cataloguer. These profiles are very different regarding responsibilities, with the digital facilitator having more user-focused tasks (assisting with the digital help desk and organising lifelong learning activities) and the other profiles focusing on digital resource management. Apart from the digital facilitator, the skill sets associated with the other profiles are in line with traditional librarian skill sets. They overwhelmingly focus on resource management and collection management with a distinction drawn between electronic

management and physical resource management. This reinforces the ISOB survey results focused on softer skills, such as team and user management, interpersonal skills, design thinking, marketing and communication skills.

V. Latvia

Regulatory framework, policies, and strategies

The education requirements for library staff are set out in the Library Law and the Cabinet Regulation No.371 of 14 August 2001 "Regarding the Number of Employees Necessary for the Work of a Library and the Education Necessary for Holding Positions".

According to the Library Law, as a result of accreditation, libraries shall acquire the status of official state level libraries, regional main libraries or official local level libraries. The education requirements are structured depending on the library's status. The requirements for the head of a library are set out in section 25 of the Library Law, but the requirements for other members of library staff are set out in the Cabinet Regulation No.371.

The requirements are very vaguely expressed. The definition "higher education" includes first level higher vocational education (college education equivalent to EQF level 5), a bachelor's degree (EQF level 6), a master's degree (EQF level 7) and a doctorate degree (EQF level 8). Practically all positions can be held by persons with education in any other field and "a certificate for the completion of a continuing education course in the field of librarianship".

For example, the education requirements for the heads of official Local level libraries are "a higher academic, higher professional, specialised secondary education in the field of librarianship or a certificate for the completion of a continuing education course in the field of librarianship". The law does not set out what kind of a certificate it is and who can issue it and more importantly, it does not specify the length of these courses. Before these requirements were enacted, the Latvian Library Council decided that the certificate of continuing education may be issued by any training centre starting from 1989 for the completion of a training course of 36 hours. This definition of the law "or a certificate for the completion of a continuing education course in the field of librarianship" is still found in many job vacancy advertisements. Laws and regulations do not set out the requirements for continuous professional development.

Up to September 2018 the situation was different with respect to the education requirements for librarians of educational institutions. They were set out by the Cabinet Regulation under the Education Law. They were clearly defined - a mandatory requirement for working at a library of an educational institution was to obtain both a degree in education and a degree in librarianship (moreover, one of these educations must be at least at the bachelor's level, the other one can be a continuing education course of no less than 72 hours). In addition to the requirements laid out above, there was also a requirement for regular professional development for 36 hours every two years.

The situation changed when the new Cabinet Regulation on the education requirements for pedagogues came into force in September 2018 librarians of educational institutions were no longer included and their education requirements are now set out in the Library Law.

Policies

Professional associations of librarians – policy recommendations

The importance of digital literacy, digital competencies and digital skills are described in several documents developed by professional associations of librarians.

In 2017, IFLA published the Statement on Digital Literacy[82]. The main aim of this document was to show the new tasks for librarians to help their users to *"access and apply the information they need for personal and community development"* in the context of *"dramatical transformation"* by digital technologies. Digital literacy becomes a competency necessary for librarians, as well as librarians have to train users in digital literacy and libraries have to provide spaces for digital literacy. IFLA stresses the need for improvement of digital skills for all citizens (including librarians).

There is "an outcome-orientated definition" of digital literacy provided by IFLA: "...*to be digitally literate means one can use technology to its fullest effect - efficiently, effectively and ethically – to meet information needs in personal, civic and professional lives.*"

In the context of open science and based on two years investigation work, LIBER's Digital Skills for Library Staff and Researchers Working Group has developed Open Science skills model (2020) which can be used as starter's guide' for Open Science-oriented library services. This model helps to "*re-assess their (libraries) services and offer new ones, so that they can meet the needs of a rapidly changing digital world. Librarians with up-to-date digital skills can provide invaluable support to library users and will personally benefit from better career prospects*"[83].

Figure 11 - Open science skills model developed by LIBER

Open Science skills model categorize digital skills important for academic librarians who are responsible for information support for research needs but to obtain these digital skills could be valuable also for librarians of public libraries both to better understand all digital information environment and to be more flexible in the labour market.

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[82] IFLA, 2019. IFLA Statement On Digital Literacy (18 August 2017). [online] Ifla.org. Available at: <https://www.ifla.org/publications/node/11586> [Accessed 23 April 2020].
[83] LIBER, 2020. Identifying Open Science Skills For Library Staff & Researchers - LIBER. [online] LIBER. Available at: <https://libereurope.eu/blog/2020/03/10/open-science-skills-diagram/> [Accessed 23 April 2020].

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Demand for digital skills in Latvia

There are several state's level documents which describe needs for digital skills of Latvian inhabitants today or in near future:

a. Sustainable Development Strategy of Latvia until 2030[84]
b. Plan for National Development of Latvia, 2020 - 2027[85]
c. Information Society Development Guidelines, 2014–2020[86]
d. Cultural Policy Guidelines 2014-2020 "Creative Latvia"[87]

    a. Digital cultural heritage development strategy, 2014 - 2020
    b. Library Sector Strategy, 2014 – 2020

Sustainable Development Strategy of Latvia until 2030

The main focus of the Strategy is a human capital – e.g. knowledge and skills of humans. Based on the global tendencies and challenges, "*the Strategy determines the sustainable development priorities of Latvia and recommends solutions for efficient and sustainable use of culture, nature, economic and social capital, which is at our disposal, particularly singling out the fundamental value of Latvia – human capital*".

The Strategy has seven priority fields: 1) Development of Culture Space; 2) Investments in Human Capital; 3) Change of Paradigm in Education; 4) Innovative and Eco-efficient Economy, 5) Nature as future capital; 6) Perspective of Spatial Development; 7) Innovative Government and Participation of the Society.

In the Cultural Space priority of the Strategy is pointed-out that digital skills are important for everybody to use digital cultural heritage and other digital collections developed by memory institutions. The important role there is for libraries to diminish the digital gap between generations and to create a safe and secure digital culture space (*important for librarians – skills for digitisation and teaching digital skills*).

In the 3rd priority - Education – The Strategy highlights digital skills as important for study and learning. It is stated that the main task for schools and libraries is to digitize content which could be relevant for studies (*important for librarians – skills for digitisation of content*).

In the priority of Innovative government and participatory society – the Strategy focuses on improvement of effectiveness of e-services and their use in life of society (*important for librarians – skills for teaching digital skills*).

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[84] Ministry of Environmental Protection and Regional Development of the Republic of Latvia, 2020. Latvijas ilgtspējīgas attīstības stratēģija līdz 2030. gadam. VARAM.
[85] Interdepartmental Coordination Center, 2020. Latvijas Nacionālās attīstības plans 2020 – 2027. Riga: VARAM.
[86] Ministry of Environmental Protection and Regional Development of the Republic of Latvia, 2014. Informācijas sabiedrības attīstības vadlīnijas, 2014 – 2020. Riga: VARAM.
[87] Ministry of Culture, 2014. Kultūrpolitikas pamatnostādnes "Radošā Latvija", 2014 – 2020. Riga: VARAM.

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Plan for National Development of Latvia, 2020 – 2027

The Plan describes main problems in the development of the digital environment in Latvia now: 1) lack of digital services; 2) insufficient use of ICT in companies; 3) insufficient use of big data.

Therefore, it is necessary to improve digital skills for all citizens and to develop digital services. The following citations describe directions for activities:

- Providing training for digital skills both in formal education system as well as in non-formal education
  *" Today, **digital skills** play an important role in everyday life, the labour market and business, so their acquisition and development is necessary regardless of age, should be included and enhanced **at all levels and in all forms of education**, and educational institutions and employers need to be aware and involved in training of digital skills".*

  *"The Internet and the digital environment not only provide services and information, but also offer opportunities for teleworking and education, while reducing the need for and frequency of transport. **Improving citizens' digital skills is a precondition for creating an inclusive labour market, as well as increasing the productivity of companies that currently make little use of digital benefits**".*
- Use of possibilities of digital transformations in all fields of life
  (accessibility to state databases, improved and user-friendly digital services both for citizens as well as for managers and policy makers, introduced concept of a data-driven society).

Other policy documents

The Ministry of Environmental Protection and Regional Development of Latvia is responsible for development and implementation of policy for advance of e-skills or digital skills of Latvian inhabitants.

Information Society Development Guidelines, 2014–2020
The document stresses the necessity for anyone to use ICT in order to create a knowledge-based economy and to improve the overall quality of life by contributing to national competitiveness, increasing economic growth and job creation.

Based on the European Digital Agenda, Guidelines define seven action lines connected with development and use of digital or e-skills: 1) ICT education and e-skills (both for inhabitants and entrepreneurs); 2) Widely available access to the Internet; 3) Modern and efficient public administration; 4) E-services and digital content for the public; 5) Cross-border cooperation for Digital Single Market; 6) ICT research and innovation; 7) Trust and security.
This document mainly uses term *information literacy*, but it includes the demand of digital skills.

The Ministry of Culture and Ministry of Education and Science in their policy documents also point out the demand for digital skills.

Cultural Policy Guidelines 2014-2020 "CREATIVE LATVIA**"**

The Guidelines list the main cultural problems which have to be solved during this time. Based on the Guidelines, it is possible to conclude that digital skills would be important for librarians to fulfil the following tasks: 1) to develop new digital services (new habits of consuming culture), 2) to digitise and to provide access to cultural heritage resources, 3) to collaborate with educational institutions in order to promote the acquisition of knowledge by the help of encyclopaedic resources of the digital culture heritage.

- As globalisation and *digital era* change habits of consuming culture, "cultural institutions must search *for innovative forms* for involvement of the society, as well as study the needs of the audience".
- *"Demand for digital content* is increasing in the field of cultural services. Several groups of the society particularly value convenient free-of-charge access to cultural information, which ensures being informed, possibility to educate, thus strengthening the awareness of social inclusion and the possibility of active participation which is also of significance when being unemployed".
- "In order to promote the acquisition of new knowledge, *cultural and memory institutions must co-operate with educational institutions*, helping to ensure the study process with encyclopaedic *resources* of the *digital culture heritage* according to the age groups and study directions".

As part of the Cultural Policy Guidelines "Creative Latvia", there are two strategies directly connected with work of libraries:
  o Digital cultural heritage development strategy, 2014 -2020
  o Library Sector Strategy, 2014 – 2020.

Both strategies describe directions of action, goals and tasks to achieve the objectives of the Cultural Policy in the development of digital cultural heritage and digital cultural services, as well as other important tasks of the library sector.

Guidelines of education and skills development, 2021 – 2027[88]

The Ministry of Education and Science has started to prepare new Guidelines for development of education and skills, and ideas are still in discussions.
Digital and technological evolution is mentioned as the main changing factor in society. It is pointed out that the education and training system has to be *flexible* in order to provide the most *relevant* analytical, social and *digital skills for every profes*sion. Digitisation of teaching content as well as support of digital innovations for research and entrepreneurship are important requirements for professional and higher education in the next years.

Digital skills are recognized as important and necessary to develop in all types of political and conceptual documents of European Union and Latvia.

There are three main directions for the library work in the context of digital transformations in society:

1) *Development of digital resources* – for example, cultural heritage maintenance, creation and popularization (digitisation skills);
2) Development of new *digital services* based on changes of human information consumption habits;
3) *Digital skills training* - to develop courses and other activities for obtaining digital skills for all citizens.

Training provisions
Formal

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[88] Ministry of Education and Science Deputy State Secretary, 2020. Izglītības un prasmju attīstības pamatnostādnes 2021.-2027.gadam. Riga: VARAM.

The main institutions of **formal education** are the following:

1) The Department of Information and Library Studies, Faculty of Social Sciences, University of Latvia;

2) the Latvia Culture College of the Latvian Academy of Culture;

3) The Competence Development Centre of National Library of Latvia.

These institutions provide various study programmes and education qualification levels detailed in Annex 10.

The main focus of formal education programmes is to provide knowledge, skills and to develop competences to manage all processes of libraries. All programmes include training of digital skills, but they are different in volume and depth.

Non-formal

Non-formal training for librarians is provided by different institutions (National Library of Latvia, Cultural information systems centre, University of Latvia etc.). During the last years the most often topics of courses were:

- media literacy;

- e-services (e-government and e-services);

- digital resources and use of it (states' importance portals);

Competence Development centre of the National Library of Latvia

The main institution providing non-formal education for libraries is the *Competence Development centre of the National Library of Latvia.*

Courses provided by the Centre

List of all courses:

1. 16-hour program "School Library Work Organization"
2. 36-hour program "Development of Students' General Competences in the Library"
3. 40-hour program "Management of Printed and Digital Resources in the Library"
4. 80-hour program "Integration of Design Thinking in the Provision of Library Services"
5. 160-hour program "Fundamentals of Information and Library Science"
6. 160-hour program "Development of adult skills in library and information work"
7. Assessment of professional competence acquired outside the formal education system
8. The latest children's and young people's fiction: trends and reading promotion
9. Library functions and competence-based implementation of new content in education
10. Library information system and data organization
11. Advocacy of libraries
12. Library collection management, accounting, technical processing

13. Library and information institution management
14. Library statistics
15. Human informational behaviour
16. Workshop "How to hear your audience?"
17. Data organization in the library information system
18. Gift and donation in the library
19. Electronic resources and information retrieval
20. Excel for Expert Users
21. Image post-processing
22. Use of Google and Other Free Online Tools in the Workplace
23. Introduction to classification with UDC
24. Use of improvisational theatre methods methodology in the work of a librarian
25. Information security in the library
26. Information Marketing
27. Information retrieval languages
28. Searching for information in the digital collection Periodika.lv
29. Information searching, retrieval and authoritative control in IIS Aleph databases
30. Intellectual property
31. Interactive lessons in children's and youth libraries
32. Latest Latvian original literature for adult audience
33. Basics of Classical Project Management and Modern Project Management Approaches
34. Creative Information Search
35. Library system of Latvia and documents regulating library activities.
36. History of Latvian libraries
37. Latvian Periodicals: Information Resources and How to Use Them
38. Business correspondence etiquette in the work of a librarian
39. Basics of Literature for Librarians: Art, Criticism, Process
40. Basics of layout
41. MS Excel: spreadsheets and their application in library work
42. Modern library – arrangement and safe working environment
43. (Un) serious game for serious issues
44. Provision of services to persons with disabilities and socially marginalized groups
45. Didactics of adult education
46. Improving the basic skills of presentation tools
47. Professional counselling
48. Communication skills
49. School library: from traditional to knowledge library
50. School library collection and its inventory
51. Improving students' information literacy in the library
52. Development of students' literary interests
53. Social media in library publicity and image construction
54. Basics of text design
55. On-site test in the distance learning educational program "Andragogy" (final examination)

56. Online Subscribed Databases
57. *Tika, tika, gramatika:* practicum in improving Latvian language skills
58. Translated Fiction: Insights into History and Contemporary Trends
59. Values and library ethics

The **Department of Information and Library Studies of the University of Latvia** offers non-formal training as well.

Course list is the following:

1. Literature collections in libraries: theory and practice

2. Digital skills for work

3. Design thinking in libraries

4. Innovation in academic and school libraries

5. Innovation development in libraries

6. Librarian of school library

7. Research data management

8. Communication in 21st century: digitally competent citizen

9. Practical research in libraries

Non-formal training is provided in regional public libraries, academic libraries, but unfortunately it was not possible to obtain complete information.

Non-formal training is mainly provided by courses (starting from some hours till more than 80 hours).

The digital skills provided in the courses can be divided in the following groups: 1) use of digital resources: content, searching, navigation; 2) improvement of information searching skills: 3) creation and preparation of digital documents and images (posters, presentations, leaflets etc).

Non-formal training can offer training for digital skills which more responds to the needs of changes in society (new portals, new e-services; digital agents).

Job vacancy analysis

According to the Latvian Classification of Professions based on International Standard Classification of Occupations (ISCO-08) there are 16 professions in the field of libraries. They belong to four basic classifier classes: 1 (Managers), 2 (Senior Specialists), 3 (Specialists) and 4 (Servants) (see Annex 11 for breakdown).

In order to establish what competences are demanded on the labour market, the quantitative content analysis of job vacancy advertisements was conducted. There were 41 job vacancy advertisements

selected from the pool of the advertisements published during the time period between 1 January 2017 and April 2020, whose full texts were found on the Internet. All library position related vacancies and the number of vacancies mentioned in the job vacancy advertisements according to the Latvian Classification of Professions based on International Standard Classification of Occupations (ISCO-08) can be viewed in table 3. These are not all job advertisements published at this time, but only those with full texts available.

All job vacancy advertisements were analysed by professions and the competences required and tasks/responsibilities. Competences are divided into three groups according to Elena Tirzman. All competencies and tasks/responsibilities were grouped into content analysis categories, which are arranged in descending order in the tables according to the frequency of their mention. Competences and job responsibilities for the most frequently mentioned vacancies (head/director of library, chief librarian and librarian) are summarized in the tables.

Head/director of Library (1349 34)

Vacancies for head/director of library are mostly in small rural libraries (8 advertisements). One job advertisement is from the county library, one from a private university library and one from the Library for the Blind. See Annex 12 for the tasks/responsibilities and competences required for head/director of library and the number of mentions.

Head of department (Head of the reader service department) (1349 32)

Only one job advertisement was found in this profession - head of the Reader services department at the Library for the Blind. Only 4 transversal competencies are mentioned in this job advertisement - ability to work with office equipment and information technology, good collaboration skills and communication skills, advanced level of the official language, and knowledge of foreign languages.

Bibliographer (2622 01)

The vacancy to the bibliographer position was in 3 job advertisements – in two cases a bibliographer was sought in the departments of the National Library of Latvia, in one case in the regional main library.

All advertisements also refer to bibliographers as key transversal competences are ability to work with office equipment and information technology, good collaboration skills and communication skills, accuracy and high sense of responsibility, advanced level of the official language. Unlike other job advertisements, bibliographers require knowledge of several foreign languages (English, Russian, German) to be able to work with documents in different languages.

In addition to the specific professional competences mentioned in other job advertisements, these job advertisements also include skills such as the ability to work with a large amount of information, management of information resources, knowledge in the relevant field (music) and research experience.

The most important work responsibilities mentioned in all job advertisements refer to the creation and editing of bibliographical records in electronic catalogues and databases.

Chief librarian (2622 02)

There were the most job advertisements for this vacancy – 14. Most job advertisements come from regional main libraries (9), two job advertisements from municipal libraries, two from university libraries and one from the National Library of Latvia.

Transversal competences are among the most frequently mentioned competences (they appeared in all 14 job vacancy advertisements), whereas general competencies were mentioned much less (in 4 job vacancy advertisements).

See Annex 12 for the tasks/responsibilities and competences required for chief librarians and the number of mentions.

Librarian of educational institutions (2622 07)

Only one job advertisement was found in this profession. This is quite laconic - a number of transversal competencies are mentioned - creativity, activity and openness to new ideas in education, advanced level of the official language, ability to work in a team, good collaboration skills and communication skills, ability to work with colleagues, parents and guests of the institution.

Only two of the job responsibilities are mentioned - to organize and lead activities for students to promote information literacy and cultural education, to support teachers in the implementation of improved curricula.

Librarian (3433 01)

There were ten job advertisements to this vacancy. Most job advertisements come from regional main libraries (6) and four from rural libraries.

Transversal competences are among the most frequently mentioned competences (they appeared in all 10 job vacancy advertisements).

See Annex 12 for the tasks/responsibilities and competences required for librarians and the number of mentions.

Library information specialist (3433 01)

Only one job advertisement was found for this vacancy – a library information specialist in the county library. Competences and responsibilities mentioned are very similar to the previous vacancy "librarian".

Conclusions on the analysis of job advertisements

Although it was not possible to use all job vacancies published over the past three years for analysis, the analysis of these 41 job advertisements may also provide a good insight into the requirements for the library specialists.

Transversal competences are among the most frequently mentioned competences (they appeared in all 41 job vacancy advertisements), whereas general competencies were mentioned much less (in 23 job vacancy advertisements).

Most frequently mentioned transversal competences are *"ability to work with office equipment and information technology"*, *"good collaboration skills and communication skills"* and languages.

General competencies were mentioned in 23 job vacancy advertisements. It is the "*ability to make decisions and plan their work*", and "*decision making skills, the ability to set priorities, meet deadlines*".

The most frequently mentioned specific professional competences in job advertisements are "*the use of library information system*", "*information acquisition, processing and analysis skills*", "*organising library and reading promotion events*".

Conclusions on competences and job descriptions regarding information technologies

In all job vacancy advertisements information and communication technologies were listed as one of the requirements or a job description.

The required competences can be expressed generally as transversal competences, e.g. "*ICT skills*" (in 32 job vacancy advertisements), "*excellent computer skills*" or "*MS Office application user skills*" (in 16 job vacancy advertisements), and as specific professional competences, e.g. "*hands-on experience working with the library information system ALISE is seen as an advantage*" , "*searching for information skills in electronic resources*", "*searching for information skills on the world wide web and in online databases*", "*E-service user skills*", "*information acquisition, processing and analytical skills*".

Many job descriptions include information technologies, e.g. "*having a good knowledge of library information systems and modern information and communication technologies*", "*having a good knowledge of information resources and their usage (placement of stock/ collections, availability of documents, database structure, use of licensed databases, etc.)*", "*information acquisition, processing and analytical skills*", "*advising library visitors on the resources available at the library and the use of communication technologies*", "*digitisation of the local lore materials*", "*advising library users on the work over the Internet, the use of e-services*".

Comparative analysis results

The European library sector does not have any regulations at the EU level leaving Member States to create their own regulatory landscapes. This results in the very different profiles outlined above with an emphasis on different skill sets.

A key aspect that stands out for many countries, regardless of the library type, is that user needs analysis and comprehension is a key feature of a librarian's skillset. For public libraries this may be similar to the Greek understanding wherein librarians must be able to mediate what their user is searching for and how to get them the result they need and point them to the sources best suited. This situation is similar in Latvia where new digital consumption habits are emerging, and libraries can play a role in informing how to safely consume digital content and can produce content for their users. For academic libraries, this can be understanding what their users' expectations are pertaining to access to resources. While the situation described in a public library requires ad-hoc on-the-spot customer service skills and the situation in an academic library is more long-term, there is an inherent need for customer-facing skills and anticipating the needs library users will have. Knowing that this is a working reality for librarians, which is also reflected in job vacancies, it is interesting that formal training qualifications do not focus on this skill set. Indeed, if we consider that the digital transformation has impacted the library sector, it would be vital that library professionals acquire user needs analysis skills to anticipate the next big information revolution or how library functions can change.

Looking at the digital strategies in Italy, Bulgaria, Latvia, and Belgium, there is already an emphasis on equipping citizens with basic digital skills. The Italian and Latvian strategies specify that a focus should be placed on older generations as they may be more likely to be impacted by the digital divide, and strategies in Belgium and Bulgaria have a broader focus on upskilling all citizens. Furthermore, public libraries across the consortium have a community-oriented service as part of their activities if it is not the primary one, and education is a key activity for libraries in partner countries. As part of this service towards the community, public libraries are expected to provide lifelong learning opportunities to their users, which would position them as crucial actors in implementing far-reaching digital skills strategies. However, positioning library professionals in that role places an expectation that they have the pedagogical skills needed for this role as well as user needs analysis skills to tailor the training to a target group.

This initial analysis aligns partially with the CEDEFOP's research on future skills needed in the legal, social, and cultural associate professionals and professionals sector. If we consider communication, critical thinking, and collaboration to be customer-oriented competencies, we note that all libraries need to have these skills to anticipate user needs and respond to them in a timely manner. This would need to be coupled with pedagogical skills for those involved in the implementation of digital strategies aimed at equipping citizens with digital skills. It is important to keep in mind that library professionals are still asked to manage collections – both digital and physical – but that this routine task may be subject to automation as library management systems develop. With some libraries already using self-checkout kiosks and automated book return systems, automation is already impacting the library sector. However, this is an opportunity for staff to allocate time to other tasks they perform and identify new user needs.

When looking at non-formal training provisions, there is an overall attempt to answer disparities in the library sector caused by the digital transformation. Apart from Greece where non-formal training opportunities could not be identified, all partner countries have some non-formal training opportunities which focus on digital skills whether this is focused on media literacy, digitisation, big data, cybersecurity, library management software updates, etc. If we compare this to the skills asked in job vacancies and the skills provided in formal qualifications, we see that non-formal training aims to primarily build on a base of existing skills and knowledge. Thus, these training opportunities reinforce a traditional skill set for librarians rather than expanding on it. If non-formal training opportunities do not reinforce existing skills, they provide a theoretical understanding of a topic. This would encourage participants to identify where innovations can fit within the library sector and further develop their activities or acquire a new tool to use in their work.

Finally, when we look at the job vacancies in the sector, we notice two trends:

1. The sector does not hire much, and
2. The titles are similar across Europe.

Partners found that jobs are advertised as "librarian" or "library assistant". Digital roles such as "Digital facilitator", "digital library coordinator", "digital cataloguer", and "data analyst" were only identified in Italy and were a minority of vacancies. While the consortium found similar job titles, the skills requirements vary quite significantly. Collection and information management and digital skills pertaining to office work and library management seems to be required across the project countries. However, other skills such as:

- Graphic design
- Social media management
- Digitisation and other digital skills

are not always required despite holding the same title. As the library sector struggles with funding, many libraries are understaffed and therefore may hire staff under the title of a "librarian" but require them to have other skill sets to respond to their working realities. It is also important to consider the impact of underfunding within the sector. As discussed in the Greek profile, high level library professionals need to be well trained in human resource management to ensure their team remains motivated and engaged with their work.

Thus, the initial skills gap emerging from this research varies across the partner countries. Bulgarian librarians are keen to learn digital skills indicating a low starting level in these skills. On the other hand, the digital skills requirements in Italy, Latvia, Belgium, and Greece seems to indicate that a basic level is expected with the possibility of upskilling depending on the non-formal training opportunities available. The existing research across partner countries points to a need for pedagogical skills in libraries as they are expected to carry out educational activities for their users. This skill set should be accompanied with user needs analysis skills as librarians are customer-facing professionals and need to be able to identify their users' needs, anticipate these, and respond in a timely manner.

Survey insights

Due to the shutdown of libraries during the COVID-19 pandemic, the survey was disseminated in two ways. Partners emailed librarians and asked them to fill out the survey, however, it was observed that many did not have access to their professional mailboxes during the lockdown. Consequently, the consortium decided to disseminate the survey on social media over the month of April and gathered over 300 responses. It was promoted several times on the BIBLIO social media accounts as well as on the partners' social media accounts.

The survey was developed in close partnership with all partners involved in this work package. The survey was reviewed several times to ensure that it identified the training needs of librarians. Additionally, it identified existing digital services in libraries as well as the time allocated to various tasks to evaluate if a specific responsibility needed more training.

A methodological error was noted on question 4 of the survey which evaluated the existing digital services in libraries. Respondents were given a range of choices; however, they were not given an option on not having and not wanting a service. The responses are analysed as they were received, however, this methodological error is considered in the final conclusions. Finally, as PL2030 is a Europe-wide network, some responses were recorded from non-project countries and have been analysed to provide a deeper understanding of the European library sector.

I. Europe

Responses from Portugal, Sweden, and Cyprus were recorded throughout the dissemination of the project. Various profiles responded to the survey including a Library Director, Librarians, Sector Manager, User Service Officer, Assistant Librarian, and Digital Facilitator. The self-evaluation of digital proficiency of these profiles varied considerably, however, even those self-evaluating as digitally proficient expressed a desire to update their skills and knowledge. Based on the self-evaluations provided in these responses, the weakest[89] areas of digital competence are content creation, safety, and problem solving. Most of the profiles indicated they felt they were "independent" or "proficient" users in information processing and communication.

The respondents identified the following digital services as already existing in their libraries:

- Wi-Fi
- Public access computers
- Digital help desk
- Digital learning space
- Self-service printing

And the following as services they would like to offer:

- Makerspaces/FabLabs
- Robotics
- Coding clubs
- Basic computer skills workshops

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[89] Weakest here is used to indicate where library professionals identified as "basic users"

- Basic Internet skills workshops
- Online safety training
- VR activity sessions

As digital learning spaces are already available in these libraries, many of the skills employed in these can be transferred to Makerspaces, coding clubs, computer skills and Internet skills workshops and online safety training. The training need for this would primarily be exploring new technologies and understanding how to apply this within the library context. This was the most requested training need from this set of respondents. Furthermore, the respondents indicated that unemployed people, the elderly, and youths were requesting digital activities the most and knowing how to implement the activities listed above could support these groups effectively.

Other training needs identified by the respondents included (in order of frequency):

1. Information management; information, data, and media literacy; community assessment; event planning and management; library marketing and communications
2. Community facilitation; measurement and evaluation of library services
3. Digitisation; team management; cataloguing; collection management

Alongside these, respondents identified soft skills such as problem solving, creativity, and knowing how to interact with users and one listed analysis of statistics on the use of electronic resources as training needs. These seemingly correlate with the current tasks library professionals are doing. When asked about their skills needs currently and for the future, respondents indicated that they already had a need for all the skills listed in the question. While there will be differences in skills needs based on each job profile, only one respondent indicated that programming skills, digital content creation, and online library services were skills needed in 3 to 5 years. Contrary to what some interviews have indicated, the library professionals who responded to the survey seem to be willing to step out of their comfort zone and explore new ways to support and serve their communities.

II. Belgium

Despite active promotion on social media and the survey being disseminated by the Flemish library organisation through their newsletter, only five responses were recorded from Belgian library professionals. While this is not a statistically significant amount of responses, it provides a brief insight into the training needs identified by Belgian library professionals and can supplement the data gathered by other partners.

Various profiles from the library sector responded amongst the answers collected and these profiles self-evaluated their digital skills to be at an "independent" level for most. The weakest area of competency observed is safety for all the respondents. There is a correlation between their self-evaluation and their desire to update their skills as all respondents indicated motivation to update their skills in some areas if not all of them.

Based on the survey responses, the following digital services exist in Belgian libraries:

- Wi-Fi
- Public access computers
- Basic computer skills workshops
- Basic Internet skills workshops
- Self-service printing

On the other hand, the respondents expressed a desire to implement the following services:

- Digital help desk
- Digital learning space
- Makerspaces/FabLabs
- Coding clubs (although two respondents indicated they were already implementing these)
- Basic Internet skills workshops (two respondents indicated they would like to implement this)
- Online safety training
- VR activity sessions

The respondents identified elderly people as their primary target group requesting digital activities closely followed with youth, migrants, low-skilled individuals, and students. However, only one respondent indicated that they have dedicated digital activities in group sessions or through ad-hoc help. As the activities listed above require a dedicated space, library professionals could face an added challenge of finding the space in their building to run such activities on top of the skills requirements.

In order of frequency, Belgian respondents listed the following for their training needs:

- Exploring technological changes
- Community assessment; community facilitation; measurement and evaluation of library services
- Library marketing and communications; event planning; team management; information management; information, data, and media literacy
- Digitisation; pedagogical training

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Authors:	Tiana Zignani / PL2030, Flavia Massara / ICCU, Aneta Doncheva, Spaska Tarandova / GLBF, DAISSy Research Group / HoU, Baiba Holma, Daina Pakalna / KISC

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Additionally, respondents felt they needed more skills and knowledge focused around online education especially regarding digital content creation as well as research and data management skills and knowledge, database management, communication including digital communication aimed at children and young people. The respondents lean towards needing the skills listed immediately. Some identified that digital content development, netiquette, and programming would be needed within three to five years and one felt that programming would be a skill needed in five to ten years. Overall, some of the training would support existing tasks such as communications and marketing, event planning and management, collection management, and team management. However, the most requested training opportunities would widen the missions of a library and push the technological knowledge and skills of staff as well as encourage a deeper community integration.

III. Bulgaria

Respondent profiles

Various job titles were observed in the Bulgarian responses for the survey and have been grouped where possible to homogenise data and build a cohesive understanding of each job profile's digital competencies.

Under the title of "librarian", 53 responses were recorded after grouping together various job titles. The average level of qualification for this profile was EQF level 6 with the following breakdown:

- Bachelor's degree in library and information science: 5
- Bachelor's degree in another subject: 11
- Master's degree in library and information science: 14
- Master's degree in another subject: 6
- Master's degree in another subject/College of Library Science: 1
- High school degree or equivalent: 13
- Degree of professional qualification 1
- Some university but no degree: 2

Bulgarian librarians have a mixed self-evaluation of their digital competence with a general leaning towards an independent user evaluation overall, however, many respondents assessed themselves as "basic users" as well. Furthermore, when we look at each DigComp 2.1 area, we can see that safety has 32 "basic user" self-evaluations compared to 19 "independent user" evaluations and 2 "proficient user" evaluations. We can also see that content creation and problem solving are areas with significant proportions of "basic user" evaluations which can indicate a training need in these areas. Despite 20 respondents self-evaluating as basic users in the DigComp 2.1 framework, only 5 indicated they felt the need to update their skills and knowledge fully to complete their responsibilities, however, the rest indicated that they were motivated to update their skills and knowledge in some areas. No significant correlations could be made between the number of library users and digital competences of librarians. In general, the libraries with more visits had more "proficient user" evaluations, however, fewer visits did not directly correlate with the majority of "basic user" evaluations therefore a strong correlation cannot be made between the number of physical visits and digital competences in librarians either. When we look at years of experience in the library sector, only those who have been in the sector for 11-20 years evaluated themselves as basic users with the rest evaluating themselves as independent users. Finally, those evaluating themselves as basic users were either 35-44 or 45-54, however, independent users were also present in the 35-44 range.

The next profile to be identified is that of a "chief librarian". 6 responses were recorded with that job title and on average, this profile has qualifications at EQF level 7 with all respondents holding qualifications in library and information science. The average self-evaluation for digital competence places this profile as an "independent user" with no specific DigComp 2.1 area standing out as a weaker area. Similarly to the librarian profile, most respondents are motivated to update their skills and knowledge in some if not all areas to fulfil their responsibilities. This set of responses indicated higher numbers of registered users and visits. The respondents for this profile had either 11-20 years of experience or more than 20 years of experience with both categories being independent users. This

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same pattern applies to the respondents' age ranges. Responses were recorded from people aged 35-44 and 45-54 and both fall in the independent user category.

The next profile identified is a "Director/Head of Library/Head of Librarian Department" with 6 responses in total. This profile has qualifications at EQF level 7 on average with 4 respondents holding qualifications in library and information science, 1 with a bachelor's degree in pedagogy, and 1 with a master's degree in engineering. No distinct DigComp 2.1 user level could be established for this profile as the self-evaluations were spread relatively evenly between all user levels and DigComp 2.1 areas. However, we can observe that safety and problem solving are areas where this profile specifically struggles as this is where respondents felt they were basic users. This profile was motivated to update their skills and knowledge in various areas. The different user levels were spread across the years of experience in the sector. Those with 7-10 years evaluated themselves as proficient users, those with 11-20 years as basic users, and those with more than 20 years as independent users. Finally, respondents aged between 45-54 assessed themselves as proficient users and those between 55-64 as independent users.

Existing digital services

The general trend in the demand for digital services in Bulgaria is an increase (31 respondents) or staying at the same level (25 responses). It is important to note that 16 respondents did not know and 6 noted that it was decreasing. Despite this general trend of users needing digital services, 92.3% of the respondents do not use assessment tools to evaluate their users' digital skills. Respondents noted that the elderly were the target group most requesting digital activities followed by unemployed persons then youths under 18. For the respondents who provide digital activities in their libraries, most note that they provide ad hoc staff assistance with drop-in clinics as the second most popular activity organised and scheduled 1:1 sessions as the third.

The most commonly available digital services in order of frequency are:

- Public access computers
- Basic internet skills workshops
- Basic computer skills/Microsoft Office workshops
- Wi-Fi
- Digital help desk
- Digital learning space
- Robots
- Self-service printing
- Makerspaces/FabLabs
- Online safety training
- VR activity sessions
- Coding clubs

We can observe that more advanced technological activities are not as readily available in Bulgarian libraries. This is reflected when respondents identified which services they would like to offer in their libraries and would need to be trained to deliver these. We can see in this instance that "VR activity sessions", "coding clubs", "Makerspaces/FabLabs", "robots", and "online safety training" are the top services respondents would like to be trained in.

Training needs according to respondents

The following breakdown of skills needs both now and, in the future, could be established from the responses detailed in Annex 13. All of the skills listed in the survey were indicated as needed immediately by respondents with only a few projecting them as future needs or not needed at all.

Respondents also indicated training needs in pedagogical skills, event planning and management, information management, exploring technological changes, cataloguing and collection management and digitisation.

IV. Greece

Respondent profiles

One respondent profile can be drawn from the responses with a "librarian" profile. On average, this profile holds an EQF level 6 qualification. Most of the respondents hold either a bachelor's degree or a master's degree in library and information science with other qualifications in humanities-related subjects, scientific subjects, and education training. Based on the self-evaluations, this profile would be an "independent user" in the DigComp 2.1 Framework. However, we can observe that safety is a competence area where respondents felt least confident and therefore should be something considered as a training need for librarians. Most respondents, regardless of degree level, indicated they felt the need to update their skills and knowledge to fulfil their responsibilities at work. Based on the data provided by respondents regarding the number of registered users and library visits, a correlation cannot be drawn between a lower number of visits and confidence in digital skills.

Existing digital services and activities

The Greek respondents indicated that demand for digital services are increasing or staying around the same for the most part, however, a significant portion of respondents did not know if demand was increasing or decreasing. Despite this trend, only 8% of respondents indicated they use some sort of tool to assess their users' digital competences. Furthermore, most of the support offered to users is through ad hoc staff assistance (53). Support is also offered in scheduled group sessions or 1:1 sessions. The respondents also indicated that they provide extra support through YouTube, by answering emails, creating suggested bibliographies, electronic submission of dissertations/doctoral theses, and online application for members/user registration. Respondents indicated the following user groups requesting digital activities:

- Elderly (30)
- Students (23)
- Under 18 youth (20)
- Unemployed persons (9)
- Migrants (6)
- Professors, internal users, organisation's staff, members of university (5)
- Researcher (4)

According to Greek respondents, the following services are usually available in Greek libraries with or without staff support:

- Wi-Fi
- Public access computers
- Digital help desk
- Coding clubs
- Basic computer skills/Microsoft Office workshops
- Basic Internet skills workshops
- Self-service printing

While these services may fall into the categories of wanting to be implemented by some respondents, overall these had a heavier weight in being already present in the Greek library sector. The same

approach applies for the services wanted in libraries, some respondents had indicated these were already present however, when we consider the overall weight of each category some services are clearly not as present in libraries as others.

The following services and activities were indicated as wanted in libraries with staff in place to support it or with training needed:

- Makerspaces/FabLabs
- Digital learning space
- Robots
- Online safety training
- VR activity sessions

Training needs identified by respondents

Of the training areas suggested, these are the five areas with the most responses:

- Exploring technological changes
- Measurement and evaluation of library services
- Community assessment/Digitisation (same number of responses)
- Library marketing and communications
- Community facilitation

Based on the skills being applied in the work of Greek librarians, the need for digitisation and library marketing and communications training correlates with some of the most selected topics. We do note that these training needs from respondents support their activities in some regard especially when we consider library marketing and communication, community facilitation, and community assessment. When respondents were asked to identify training needs outside of those suggested, respondents indicated their interest in soft skills such as:

- teamwork and collaborative skills,
- strategic thinking including fundraising strategies,
- critical and comparative thinking,
- self-development skills,
- networking, customer service, communication, and public relations skills.

Respondents also expressed a need for hard skills around technical knowledge of technology, accessibility knowledge and skills, constant updating of computer skills, systems management, information education including the skills needed to teach this, digital library management including management of pre-existing digitised content, and management skills including HR management.

V. Italy

Respondent profiles

Various profiles submitted responses to this survey and evaluated their digital competences in different ways.

42 respondents held the title of librarian and on average had qualifications in line with EQF level 6. 22 of the respondents had qualifications in subjects outside of library and information science. On average, this profile could be considered to be an independent user however, when this data is broken down, the area which got the most responses as a basic user was safety followed by content creation and problem solving on the DigComp 2.1 Framework. In line with these self-evaluations, most respondents felt that they should update their skills and knowledge. Respondents working in larger libraries felt they were basic digital users whereas those working in small and medium libraries evaluated themselves as independent users. Respondents with more than one year of experience in the library sector identified as independent users and those with less than one year as basic users. From 25 to 54, respondents identified as independent users and those between the ages of 55-64 felt they were basic users.

11 respondents held the title of director/library manager and on average had a qualification at EQF level 7 and 8. Interestingly, only one of the respondents had a qualification in library and information science with the other respondents have qualifications in various humanities fields. The average self-evaluation for this profile regarding digital competences places the profile as an independent user, however, when this data is broken down and we examine which DigComp 2.1 areas had the most "basic user" responses, safety and problem solving are areas in which directors/library managers feel the least confident in. It is important to note that most of the self-evaluation is concentrated around the independent user level, however, few respondents evaluated themselves as proficient users in general. All respondents under this profile, felt the need to update their skills and knowledge. Different trend for director/library manager between library size and confidence in digital skills. Directors/library managers working in small libraries self-evaluated as independent and basic users in the same proportion. Those in medium libraries felt they were basic users and those in large libraries felt they were independent users. As these are senior profiles, they have from 11 years of experience up to more than 20 years. Those between 11 and 20 years of experience identified as independent user and those with more than 20 years felt they were basic users. We can observe a similar trend as the librarian profile wherein those aged 55 to 64 evaluated themselves as basic users whereas those between 35 to 54 felt they were independent users.

One communications office manager took part in the survey and has a qualification in Communication sciences at EQF level 6. Overall, they self-evaluated as an independent user in content creation, safety, and problem solving and as a proficient user in information processing and communication. On the whole, this respondent is an independent user but recognizes that they need and would like to update their skills and knowledge.

A cataloguer and archivist also took part in this survey. Both profiles have qualifications at EQF level 6 but outside of the library and information science field. Overall, the cataloguer self-evaluated as a basic user especially in the information processing, safety, and problem solving areas of competence. The archivist's self-evaluation places them as an independent user overall, however, they evaluated

themselves as a basic user in safety and problem solving. Both felt they needed to update their skills and knowledge. These profiles follow similar age trends observed in the librarian and library director profiles wherein those aged 55 to 64 evaluated themselves as basic users and those beneath that age range as independent users.

Existing digital services

Based on the responses, for 69.6% of the respondents demands for digital services are increasing whereas for around 25% it's staying about the same. Despite 94.6% of the Italian survey respondents noting this trend, 98.2% of respondents do not use any assessment tools to evaluate their users' digital skills. 75% of the respondents indicated that they offer "assisted digital" services in their institutions. These include ad hoc staff assistance (37.87%), drop-in clinics (31.81%), scheduled 1:1 sessions (15.15%), and scheduled group sessions (15.15%). Specific target groups were identified as requesting digital activities. The elderly make up most of the demand (31.7%) followed by youth (19.5%), unemployed persons (15.9%), migrants (12.2%), university students (6.1%), adults (6.1%), researchers (4.9%), and generic users (3.7%).

Regarding the digital services provided in libraries, the following are provided with staff support:

- Wi-Fi: 22,2%
- Public access computers (PaCs): 19,6%
- Basic computer skills/ Microsoft Office workshops: 15,6%
- Self-service printing: 11,1%
- Digital help desk: 9,8%
- Basic internet skills workshops: 9,3%
- Online safety training: 4,4%
- Digital learning space: 4,4%
- Makerspaces/FabLabs: 1,8%
- Robots: 0,9%
- Coding clubs: 0,4%
- VR activity sessions: 0,4%

The following services were listed as implemented without staff support:

- PaCs: 17,9%
- Self-service printing: 17,9%
- Basic computer skills/ Microsoft Office workshops: 12,8%
- Basic internet skills workshops: 12,8%
- Wi-Fi: 10,3%
- Online safety training: 10,3%
- Digital help desk: 7,7%
- Digital learning space: 5,1%
- Coding clubs: 2,6%
- VR activity sessions: 2,6%

The following services were indicated as desired in the library with staff trained to support them:

- Digital learning space: 14,6%

- Basic internet skills workshops: 14,6%
- Digital help desk: 10,7%
- Online safety training: 10,7%
- Self-service printing: 10,7%
- Coding clubs: 7,8%
- Basic computer skills/ Microsoft Office workshops: 7,8%
- VR activity sessions: 6,8%
- Makerspaces/FabLabs: 5,8%
- Robots: 5,8%
- PaCs: 2,9%
- Wi-Fi: 1,9%

Finally, the following services were identified as desired and needing training to implement it in the library:

- Robots: 15,7%
- VR activity sessions: 15,4%
- Makerspaces/FabLabs: 15,1%
- Coding clubs: 15,1%
- Online safety training: 10,2%
- Digital learning space: 9,5%
- Digital help desk: 6,6%
- Basic internet skills workshops: 4,9%
- Self-service printing: 4,3%
- Basic computer skills/ Microsoft Office workshops: 2,6%
- PaCs: 0,7%

When examining these responses, traditional library services focusing on facilitating access to information such as Wi-Fi, self-service printing, public access computers (although some can be restricted to consulting the library's catalogue only), basic digital skills workshops are usually already implemented within the library with or without library staff support. When it is not implemented already, responses indicate that library professionals are trained to implement these already. If training is required, requests do not exceed 5% of responses. When we look at which services library professionals are already trained in and would want to implement, the first five services include: "digital learning space", "basic Internet skills workshops", "digital help desk", "online safety training", and "self-service printing". These services are tailored to help facilitate access to information as well as knowing how to stay safe online. On the other hand, when we look at the services which would require training, Italian survey respondents stated they were interested in "robotics", "VR activity sessions", "Makerspaces/FabLabs", "coding clubs", and "online safety training". The first four services involve new technologies and new ways of thinking and involving users in libraries and the final is focused on digital safety. These are new and forward-thinking activities to involve in the library sector.

Training needs identified by librarians

The top five training topics of interest to the Italian survey respondents were: "exploring technological changes" (12.1%), "community assessment" (11.5%), "Measurement and evaluation of library services" (11.5%), "library marketing and communications" (10.3%), and "information, data, and media

literacy"(10.0%). Based on the results of the training needs identified by librarians, these were correlated to activities within the library sector to assess whether the training would support existing responsibilities or new ones[90]. A synthesis was made of all responses which can be consulted in Annex 14.

The following overlaps were present between training needs and professional skills needs:

- Of those citing digitisation as a current skills need, 3.54% also indicated it as a training need
- Of those citing management of electronic resources as a current skills need, 3.54% also indicated information management as a training need
- Of those citing social media management/library marketing as a current skills need, 7.67% also indicated it as a training need
- Of those citing information, data, and media literacy as a current skills need, 6.78% also indicated it as a training need
- Of those citing programming as a current skills need, 3.54% also indicated it as a training need

When librarians were asked to project their skills needs for the future, very few responses were gathered for the five to ten year period and these were on programming, communication through digital technologies, and digitisation. However, when librarians were asked to project their skills needs in three to five years, more answers were apparent. The following data could be gathered on training needs and professional skills projections overlapping:

- Of those citing digitisation as a skill needed in three to five years, 4.5% also indicated it as a training need
- Of those citing management of electronic resources as a skill needed in three to five years, 5.5% also indicated it as a training need
- Of those citing social media management/library marketing as a skill needed in three to five years, 5.5% also indicated it as a training need
- Of those citing information, data, and media literacy as a skill needed in three to five years, 7.3% also indicated it as a training need
- Of those citing programming as a skill needed three to five years, 13.6% also indicated it as a training need

Looking at the overall answers for question 10 we can observe that the most requested skills are those which are already applied or needed immediately and needed in 3-5 years:

- Communication through digital technologies (e.g.: using the appropriate tools to collaborate with co-workers on a project)
- Copyright legislation (e.g.: finding images that are licensed under a certain type of Creative Commons license and can be used without the author's permission)
- Information, data and media literacy (e.g.: analysis of sources and filtering them to find the information needed)

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[90] A strong correlation could not be made systematically between existing library professional duties and the training topics suggested due to some of the latter being outside of the listed responsibilities of library professionals.

- Netiquette & data protection & online safety (e.g.: knowing how to behave online in frustrating situations, knowing how to keep your data safe)
- Digital content development (e.g.: knowing how to create an animated presentation such as a YouTube videos)

These skills topics can be added to the answers for question 8, the training needs question. "Library online services" and "Social media management/library marketing" (compared to "Library marketing and communications" in question 8), requested also in the most cases in question 8, but are, here, divided between librarians who need them immediately and librarian who don't need them at all.

"Programming" (compared to "Exploring technological changes" in the training needs question) confirms its importance but in three to five years, this is the topic in clear prevalence for the projection.

Instead "Digitization of material" and "Management of electronic resources" seem to be two activities divided between a majority who believe they do not need them at all and other respondents who project the need three to five years' time.

Library professionals were also asked to indicate how they allocate their time to various activities throughout an average week on question 16 of the survey. The breakdown of answers can be seen in Annex 15.

Comparing responses to question 16 with question 8 (percentage in the last column of the above table) there seems to be a match only in the case of "Library communications and marketing" and "Community assessment". The first one is a skill needed and an existing activity but in the case of "Community assessment", it is not so widespread activity: suggesting that librarians may want more training in that area specifically.

The survey included a question asking what other skills they would be interested in training in. See Annex 16 for the full list.

Finally, concluding this analysis we can say that by comparing the answers to questions 8, 10 and 11 it is possible to identify some topics of major interest:

- **Communication and marketing**, that can be further enhanced by the demand for digital and graphic design content development;
- **Community assessment**;
- **IT skills and troubleshooting**, primarily understood as the ability to master technological and IT tools to solve technical problems;
- **Information, data, and media literacy**;

Other topics required but with less statistical strength may be knowledge of licensing, copyright, Open Access policies, netiquette and online safety as well as measurement and evaluation of library services. Exploring new technological changes (e.g. augmented reality, virtual reality, robotics, coding, blockchain, open data etc.) is also an important topic but it is not an immediate need.

VI. Latvia

Respondent profiles

59 respondents listed their job title as head/director of a library with an average level of qualification at EQF level 5. Most respondents held qualifications in fields outside of the library and information sector with only 15 respondents holding qualifications in library and information science. On average, this profile self-evaluates itself as an independent user in all areas of the DigComp 2.1 framework. A general weak negative trend could be observed for this profile wherein respondents who underestimated their digital competences were also aware that they needed to improve these to work successfully. Only a slight positive correlation could be observed when we take library size into consideration, therefore, libraries with a larger number of registered users had respondents with a slightly higher self-evaluation. This profile holds an independent user evaluation across all age and years of experience ranges.

Ten respondents listed their job title as "Head of department" which has an average EQF level 6 in terms of qualifications. Six respondents indicated they had qualifications in a field outside of the library sector and the rest have qualifications in the library and information sector. Similarly, to the director profile, the self-evaluation places this profile as an independent user of all DigComp 2.1 areas of competence. There is no correlation between the self-evaluation and awareness of needing to improve on digital competences, however, this can be attributed to the low number of respondents with this job title. Like the director profile, heads of department with a larger number of users are more confident in their digital skills, however, this is a very slight positive correlation. When we break down the self-evaluations based on years of experience, those with one to three years evaluate themselves as basic users, those between 4 to 20 years as proficient users and those with more than 20 years of experience as an independent user. This trend continues when we break up the self-evaluations among age groups. Those 65 or older evaluated themselves as basic users, whereas those between 35 and 44 felt they were proficient digital users. Those aged between 25 and 34 and 45 and 54 felt they were independent users.

The next respondent profile is those of chief librarians. 11 responses were recorded and indicated that the average level of qualification for this profile is EQF level 6. Most of the respondents indicated they hold qualifications in another field than in library and information science. On average, this profile self-evaluates as an independent user of DigComp 2.1 areas of competence. Overall, there is a weak negative correlation between awareness of needing to update digital skills and the self-evaluations. Therefore, respondents who underestimate their digital competence are also aware that they need to improve on this in order to work successfully. Similarly to the two previous profiles, libraries with a larger number of registered users had librarians with a higher level of confidence in their digital skills. We can see that there is a slight breakdown of proficiency levels when we compare the years of experience of each respondent. Those with less than 1 year of experience evaluated themselves as basic users whereas those with 7 to 10 years of experience and more than 20 years of experience felt they were independent users. Finally, those with 11 to 20 years of experience assessed themselves as proficient users. However, when we split the data across age ranges, the evaluation evens out to independent user level from the 25-34 to 55-64 age ranges.

12 respondents indicated they hold the title of "Librarian" and will be our next respondent profile. The average level of qualification for this profile is EQF level 5. The qualifications specified by the

respondents were all outside of the field of library and information science. Overall, this profile evaluates itself to be at an independent user level within the DigComp 2.1 framework. There is a weak positive correlation between the self-assessment of digital competences and their confidence in being able to complete their tasks at work. This means that respondents who underestimate their digital competences are not aware that it should be improved. When we correlate the library size to confidence in digital skills, we note a similar pattern as the previous profiles wherein libraries with a larger number of registered users have library professionals with a slightly higher level of confidence in their digital abilities. A breakdown of data based on years of experience indicates that respondents with:

- One to three years of experience evaluated their digital competence as independent user
- 7-10 years at basic user level
- 11-20 years at proficient user level
- More than 20 years at independent user level

We can observe that different age ranges indicate different levels of self-evaluation whereby those within the 35-44 range felt they were independent users, those aged 45-54 felt they were proficient users, and those aged 55-64 felt they were basic users.

The final two profiles only appeared once among respondents: system librarian and bibliographer. The system library has a qualification level at EQF level 7 with qualifications in the library and information science field and in other fields. This profile is a proficient user in all DigComp 2.1 areas except content creation. The bibliographer profile also has an EQF level 7 with a qualification in a field outside of the library and information science field. For all DigComp 2.1 areas except problem solving, this respondent evaluated themselves as a basic user and they felt they were an independent user in the final area.

Existing digital services

The general trend for Latvian respondents was that the demand for digital resources or help with digital skills is increasing. Some respondents noted it was staying about the same with few indicating that it was decreasing. Despite there being a constant demand for these, 68 respondents in total indicated that they do not use any tools to assess their users' digital skills. We can also observe that the preferred format for digital services and activities in Latvia is drop-in clinics followed by scheduled group sessions. Overall, the elderly (22) are the target group requesting digital services the most, followed closely by under 18 youths (15) then unemployed persons (13).

When we look at the activities and services already present in Latvian libraries, we can notice that services around basic digital skills including Internet skills and online safety workshops are already implemented with staff support in Latvian libraries. Other services such as Wi-Fi, public access computers, self-service printing, and digital help desks are readily available in the respondents' libraries. On the other hand, services and activities around more advanced technology was not as readily available in Latvian libraries and respondents indicated they were most interested in being trained in these. This includes:

- Makerspaces/FabLabs
- Coding clubs

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- Robots
- VR activity sessions
- Digital learning spaces

Training needs according to respondents

The training needs identified by respondents align with the services they would like to offer as the most requested topic was exploring technological changes. This was followed with digitisation and information, data, and media literacy. We can observe a match between training needs and the skills needed in Latvian librarianship as several indicated that information, media, and data literacy and digitisation were skills they already needed in their work as well as some of the most important training needs. Notably, library marketing and communication skills are also needed in modern librarianship.

Aside from the skills suggested in the survey, the Latvian respondents indicated skills pertaining to digital content creation as an important skill set for their work. Some respondents expressed a need to regularly improve on their general digital skills indicating that some respondents are open to the changes caused by a digital transformation and recognise the need to continuously improve on their digital skills. Respondents also identified more transversal skills including some listed in the survey such as event planning and management, library marketing, media literacy, pedagogical skills, and team management. Other skills needs included knowledge on communicating with users and user studies especially regarding users with disabilities, self-development and learning abilities, strategic planning, critical thinking including complex problem solving, cooperation and leadership skills.

Comparative analysis results

The survey reveals various elements regarding the needs of library users as well as the training needs within the sector.

Firstly, while there are differences in the provision of digital services within libraries, most countries indicated that they mainly offer ad hoc staff support to users. Latvia and Bulgaria were the only countries to rely much more heavily on drop-in clinics than ad hoc assistance. There is a need for more structured digital services in the library sector so as to lower the reliance on ad hoc assistance on staff members. We can also observe that the primary target group requiring digital assistance is the elderly. This is followed closely by:

- Students
- Youths (under 18)
- Unemployed persons
- Migrants

These groups were mentioned at the same frequency across the partner countries. As various user groups are requesting digital assistance, it is vital that library professionals are able to 1) identify the user groups in their library that are in need of support and 2) identify where the areas of weakness are. Notably, very few library professionals were using a tool to assess their users' level of digital competence and need to be made aware of the tools available to them.

Based on the respondent profiles that could be drawn in this survey, we cannot conclude that age and years of experience in the library sector will impact confidence in digital competence. However, based on the self-evaluations provided we can observe a clear weakness in specific DigComp 2.1 areas. Across all countries, librarians indicated that safety was an area of competence they did not feel confident in with over 47% of respondents evaluating themselves as basic users. Digital content creation and problem solving were other areas that had the lowest self-evaluations although this differed in various countries and across profiles. Respectively, 36.02% and 36.34% of respondents self-evaluated as basic users in these areas.

These areas may need to be developed further depending on individual job roles and responsibilities, however, these are digital competences library professionals should at least have an intermediate level of proficiency within the DigComp 2.1 framework regardless of the responsibilities they have.

When we look at the services in libraries and those that libraries would like to implement, many have services such as Wi-Fi, PaCs, and self-service printing, and libraries tended towards the implementation of creative activities such FabLabs/Makerspaces, coding clubs, robotics, and digital realities although, as noted in the introduction of this section, the survey did not have an option to not select a certain service and this must be considered when drawing conclusions. Thus, while we note that there is seemingly an interest in implementing creative and digital making activities, this is a skewed result. We can also note that there seemed to still be a need for basic digital skills workshops on computer skills or Internet skills. Therefore, an indirect training need for library professionals is pedagogy and the relevant skills to instruct various target groups.

The library professionals who responded to the survey in general seemed motivated and aware of the need to refresh their skills and identified various training needs to fulfil their duties. Indeed over 94%

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of respondents felt that they needed to partially, if not completely, update their skills and knowledge to fulfil their tasks at work. One of the key ones that came up for several countries is around communication both online and offline. Respondents suggested that learning to interact with users and communicate with them was a skill they needed to strengthen. Alongside this, many respondents indicated that learning how to create digital content was a skill that was immediately needed for their role. However, it is important to note that only 19.56% of respondents evaluated themselves as basic users for this DigComp 2.1 competence suggesting that most library professionals feel a degree of confidence in this area of competence.

Notably, there was interest in exploring technological changes although this was not always listed as an immediate training need. However, providing training in this would respond to the needs of continuous digital upskilling listed by Latvian respondents. Furthermore, exploring new technology could push the development of new library services and activities and help the library sector transition into the digital era. There also was a desire to train in information, data, and media literacy which aligns with the missions and activities of libraries for the project countries. We can also observe a training need around community assessment and facilitation. Finally, few future training needs were identified by the respondents. These were mainly around programming and digitisation for Italy and Bulgaria notably.

Respondents also indicated that they needed to be trained in soft skills such as teamwork and collaborative skills, critical thinking, strategic thinking, networking skills, customer service, and self-development skills. These will be considered in the job profiles that are created at the end of this WP.

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In-depth interview insights

In light of the COVID-19 pandemic, the consortium agreed to replace the coaching circles initially prescribed for this with in-depth interviews. These are intended to gather insights from sector representatives, library professionals, users, and partner organisations to libraries. EGInA provided a list of questions that could be relevant during the interviews and partners identified library professionals, service providers within the library, and users (where possible) to interview for this research activity to build a holistic perception of the library in the digital age. Partners leveraged their own networks to reach out to interviewees and were asked to carry out a minimum of five interviews. Metadata was extracted from these interviews through an analysis of respondents' non-verbal communication to understand underlying emotional factors to statements.

PL2030's position as an EU-wide network provided an opportunity to speak to sector representatives outside of the partner countries. The results of these interviews have been included to provide an overview of challenges faced in other countries which may correspond to those faced in the partner countries.

I. Europe

Respondents from Slovenia (ER1), Portugal (ER2), the Netherlands (ER3), and Sweden (ER4) were interviewed to understand the impact of the digital transformation on their respective library sectors. Responses ranged from a need for basic digital skills for library professionals to developing user-centric approach rather than a library-focused one. Frustration was expressed at the lack of digital skills and knowledge of free online resources which can be used in library activities. Furthermore, a lack of knowledge around accessibility and motivation to implement accessible activities and create accessible collections elicited frustration from a respondent as well.

Several participants noted that there is a disconnect between the physical library space and the digital space when the latter exists. While a library's digital presence may highlight various activities the library provides, when walking into a library the focus is still placed on the collection rather than the numerous services the library provides. ER4 highlighted that library processes are part of a community ecosystem which requires library services to be well integrated within this environment and provide a smooth transition between the physical library space and the digital one. On the other hand, ER2 stressed that a digital strategy and presence is non-negligible in today's society as it provides libraries with a way to connect and communicate with their communities even during crises. However, to achieve this, digital skills and strategic thinking skills are required.

Regarding training needs, various topics and approaches were discussed during these interviews. It was noted that top-level management needed to recognize the importance of digital skills and the need for team members to acquire new skills. While no frustration was detected when discussing this with ER4, they emphasised that the top-down approach to a digital upskilling project helped legitimize their initiative and push library managers to accept that their team members needed digital upskilling. Additionally, it is necessary to consider that library professionals may overestimate their competences if they do not understand how vast the subject is as was the experience of one respondent. They noted, while laughing, that their pre-test indicated that librarians ranked their competences higher and, in their post-test, librarians lowered their rankings once they understood how vast the topic was. Various topics requiring training in the library sector were brought up during the interviews:

- Design thinking
- Cybersecurity questions
- Strategic thinking for library leaders to anticipate future trends and crises
- Digital content creation
- Information and data literacy – while many librarians feel confident in their abilities in this field, respondents highlighted that continuous training in this topic is needed for library professionals.
- Communication skills with users especially when dealing with accessibility issues
- Marketing of library services and collections

Frustration was expressed by two respondents when discussing that only one or two library professionals in each library have the digital skills needed to deal with their users' digital questions when all library team members should be able to answer these. Furthermore, other participants expressed irritation with the traditional approach to librarianship in their country as it did not motivate librarians to learn digital skills or if they are motivated finding funding and training is difficult. Alongside this, traditional librarianship sees librarians stay in their comfort zones and rarely venture out of it. The Portuguese interviewee indicated their frustration at the higher rate of registrations for traditional training opportunities in library management or collection management and the lower rate for unconventional training sessions around digital skills. Finally, the ER1 and ER2 found that the lack of a harmonised digital content platform at the national level made it difficult for library professionals to practice digital librarianship.

ER4 was particularly optimistic about the drivers to encourage library professionals to acquire digital knowledge. They noted that understanding how libraries can interact with the digital sphere to encourage democracy – including freedom of speech and the right to debate – media and information literacy, and cultural impact – namely through promoting reading and encouraging creativity in Makerspaces. As these three dimensions align with many libraries' missions, library professionals could relate digital knowledge to these and were motivated to acquire new digital skills. Notably, one respondent emphasized that libraries should be turning to third parties to support their activities and the knowledge of librarians. Finally, ER3 briefly discussed the job profile of "community librarians" who are trained in identifying and responding to their communities' local questions. They indicated that this could be the future of librarianship in public libraries and seemed optimistic at the training of such professionals.

II. Belgium

A representative from the Flemish digital library service was interviewed to understand how the digital transformation had impacted the Flemish library sector. Overall, Flemish libraries are still behind on the digital transformation but are gradually catching up. The interviewee did not seem stressed by this slower approach. They did indicate frustration at the slower implementation of essential library services and indicated their work on developing a "collect and go" service within libraries that was only deemed essential once the COVID-19 crisis had strongly impacted the sector.

The job profile has drastically changed with newer hires expecting a job that is focused on people rather than books. The interviewee seemed slightly uncertain when making this assertion perhaps to avoid over generalizing the current attitudes in Flemish librarianship. They noted rather

pessimistically that older generations of library professionals held a strong book-focus and lacked the motivation to learn new ways of working. However, they were optimistic at their drive to learn library systems even if they lack digital skills in other areas.

Interestingly, the approach to digital service provision in Flemish libraries is to create plug and play services. The interviewee noted that they also organised mass training and try-it-yourself training but they seemed much more excited and positive at the idea of plug and play services. For a service provider this allows them to lower costs associated to a new service, however, it does not actively encourage upskilling. Library professionals are required to apply trial and error on slightly more complex services which can elicit frustration and discourage the use of new services.

The interviewee indicated that one their successes concerning digital upskilling is through the Mediacoach project. There was visible excitement when discussing the positive impact this initiative had. The focus was on training motivated individuals in digital policy and practical implementation. It not only covered the library sector but also the educational sector and the youth sector as they face similar issues. The objective was not to create someone who is an IT or digital expert but rather equip individuals with the knowledge and attitude needed to train their own team and organise digital projects within their own institutions. The interviewee believed that the connections with other motivated individuals allowed participants to learn what was being done and draw inspiration from there to keep developing new digital projects.

Overall, the interviewee noted that there was a general unease from librarians at having more time due to automation although the interviewee themselves seemed excited at the prospects of librarians having more time. Throughout the interview, the interviewee expressed that library professionals needed to be taught to have proactive attitudes which actively seek out new tools, experiment with them, and replace them when needed. A key message was that there was no need to learn everything about a digital tool before applying it and rather the ways in which library professionals work needed to continuously evolve. Finally, the interviewee indicated noticeable frustration that bridging the digital divide was no longer a key mission in many libraries but information and media literacy was still part of their agenda when both topics emerged at the same time.

III. Bulgaria

The average age of the interviewees is between 40 and 50 years, which shows us the tendency that the young librarian generation prefers another career opportunity than to work in the library. Most of them have a library qualification, with the exception of the ICT specialist and the library user. All survey participants declare that they have digital skills. They usually do their self-assessment on DigComp. Two of the participants rated their skills more as a *Proficient user* and the others as an *Independent user* and partly in some of the competencies as Information and data literacy and Communication and collaboration as a Proficient user.

All participants are convinced that the digital transformation has a great impact on library services. In a sense, libraries, and in particular the Bulgarian ones, have to catch up with the technologies and innovations in the IT sector. Bulgarian libraries face the challenge of libraries' readiness to introduce new digital services and the needs and skills of users to use them.

In the process of the introduction of digital services, everyone shares that they face difficulties and barriers. Directors point out their views of their staff namely their insufficient skills, and a certain fear of innovation, scepticism, and conservative environment at the library. This is stated by two of the participants. One of them emphasizes the positive role of teams working in the development and implementation of new services. In addition, they share numerous organizational, managerial, and technological problems related to the lack of sufficient funds for investments in technologies.

Participants share opinions about different types of services. We observe the tendency of use of different partners outside the library in the introduction of digital services. These are usually municipalities, other libraries, NPOs, companies. The feelings of the interviewees range from uncertainty and anxiety about the introduction of some of the new digital tools and services to satisfaction with the implementation of services and feedback from visitors and readers, especially when the users are children and teenagers.

The interviewees indicate as methods of coping, the training for the staff, the training for the different categories of users; the combination of training and online resources, and tutorials. There are still not many good practices. Sometimes Facebook groups and interest groups work to share good practices. The colleagues share that some of the problems can be solved faster if they have the support of the municipalities, especially when investing in the training and professional development of librarians.

Respondents also have an opinion on what more can be done to improve services / activities. Two are of the opinion that funding should be provided for the purchase of new equipment and software, especially training platforms. One of the interviewed library directors said "In my opinion, improving services is not a matter of money. The question is - are the librarians ready to respond to reality, and to the requirements of the time". The other interviewed director believes that the most important thing is to upgrade existing services - to reach more people, to improve them. However, everyone shares the opinion that there should be training and continuous qualification of the staff.

The interviewees are motivated to introduce new services and to increase their digital literacy and competence. Some of them feel like pioneers, others are satisfied and enthusiastic to continue working in this direction.

IV. Greece

The Greek in-depth interviews revealed positive attitudes to the digital transformation within the Greek library sector and the possible services that could be developed as a result of this. R1 expressed a strong opinion that the digital transformation should not seek to replace activities but rather to expand and make them more accessible to a wider audience. They seemed confident that this was possible and would not threaten the core activities of the library sector. R2 and R4 indicated a positive change in user experience after implementing changes to the communication channels between staff and users namely through live chats. They also noted that access to digital content especially HOU's books and facilitating the submission of users' theses have made things more convenient for users and the library saves space due to digital storage. R4 expressed a different experience as they discussed their activities during the COVID-19 lockdown. They indicated that their Creative Writing and Photography teams were able to move sessions online and participants were able to take part in these. However, their Literature Reading Team made up mainly of women over the age of 55 was not able to

run sessions online despite efforts to familiarise the participants with the technology beforehand. Thus, there is still a need to instil confidence and knowledge in library users regarding technology.

Despite these changes in technology, R2 expressed that they preferred to study with printed materials which they keep in mind when designing and implementing a digital task. R2's approach seems to be user focused as they work at HOU's library and they want to create in a way that accompanies library users in their way of working. This approach is particularly important as users in R2's library preferred traditional methods and face-to-face communication despite the implementation of new digital services, thus creating services that complement this behaviour is important to ensure uptake. R2 envisions creating a "digital study hall" within the university library where students can meet, read, and discuss. They note that this would be a difficult endeavour but feel motivated to create this as they feel it would have a positive impact on the user experience. R2 also noted that they take a humanistic approach when developing new library services which includes working with librarians. In a similar way, R3 encourages user-centric design in libraries which incorporates digital, modern, and traditional methods into services tailored to users.

Some respondents noted that new digital technology had created new requirements for the library sector. For example, R3 believes that an online communication strategy is crucial for libraries to disseminate information and reach a wider audience. However, R3 stressed that librarians need to be trained in communication techniques and tools to create successful and impactful online communication strategies. Giving the tools without context to librarians would not result in successful communication. R3 also stated that "a library shouldn't only be a transmitter of 'knowledge' or 'information' but should be a receiver too" when talking about building relationships with users through new tools. While this is an important path for libraries to reach new audiences, they must do this with the tools users employ rather than trying to get them to use new tools. R4 believes that digital technology can help solve practical issues with simplified software and online communication platforms however, staff need to be trained in this and the library must have enough funding and policies in place to support new technology.

While the general attitude seems to positive, several training needs were highlighted by respondents. On the user side, R1 from the National Library of Greece (NLG) indicated that users needed validation while going through the registration process despite clear and straightforward instructions being available. This applied to the young and elderly users of the NLG. While some of the NLG staff was confident about how to go through this process and could help users easily, a portion did not and specific colleagues were called in to help with user requests. Respondents noted more issues on the staff side especially regarding technology for administrative procedure. Greek R4 noted that resolving issues with the Ministry of Education was time consuming and counterproductive and expressed a high level of frustration when discussing this. The same respondent also noted a negative experience with the implementation of a project aiming to digitise public library material in 2008 due to the Ministry of Education and poor central planning.

From this, various training needs can be identified in different fields. R3 identified two main areas of competence where library professionals should be trained: communication and evaluation of library services. For the former, R3 indicated that library professionals need to be trained in the interdisciplinary nature of communication and need to regularly update their knowledge as social media tools evolve. They also felt that library staff working on social platforms may need to be trained

in getting an overview of their activities and analytics on each platform to assess if they are overactive or inactive on specific platforms. Regarding the latter, R3 primarily felt that there is a need for library professionals to understand how to assess analytics to evaluate the acceptance of services by user and improve them where needed. R4 indicated a more varied list of competences needed as indicated below:

- digital literacy skills
- the ability to automate digitally
- handle communication and electronic networking technologies
- knowledge of the practices in the global library community
- understanding of communication aesthetics and communication skills
- discern fake information
- simplify situations for users

These interviews identify specific training needs and a general openness to learning new skills as the library sector evolves.

V. Italy

Fear, shame, and distrust of digital tools entering the library was strongly held by Italian R1. They noted that they identified the librarian role as more paper-related, strongly indicating a traditional perspective to librarianship, and initially held a view that digital tools linked to e-reading did not have an intrinsic value for the library sector. However, with the support offered during various training courses, this respondent gradually opened up to the possibilities of digital tools supporting library services. A fear of organising activities that are "too big" in their library was raised indicating that they felt the need to have practical training before fully committing to bigger initiatives.

On the other hand, Italian R2 who had more extensive experience with digital tools due to prior experiences was much more open to using digital tools in their library. According to this respondent, it is important that library professionals are proficient in Adobe programmes, understand the connection between education and the digital sphere, know how to manage social media accounts, and have strong skills in project design. Italian R1 expressed their interest in learning digital content production skills linked to making podcasts and recording and editing videos. Despite the difference in previous experiences, once the initial fear of digital tools and their role in libraries was gone there was a high level of motivation and interest in acquiring digital skills.

As librarians are not required to continuously train, it is important to understand how curiosity and previous experiences influence their motivation for taking part in "outside the box" training. It is also important for libraries to understand the importance of a digital service even if their offer is primarily traditional library services such as e-lending. Italian R2 noted that the creation of a digital service in their library was done to indicate that the library can be a contemporary place. This points to an issue that libraries are still perceived in a much more traditional way rather than a place to meet, connect, and discuss and could indicate that stronger marketing skills are needed in the Italian library sector to better communicate their activities. Furthermore, the same respondent indicated frustration at the disconnection between digital services and services within the library especially regarding registering for the digital library in-person. This suggests that library service developers need to take into consideration user needs and ensure easier access to library services outside of the physical building.

An issue was raised around the provision of digital library services by an interviewee. One private company has a policy which presents a technical issue for librarians. This stops them from engaging and being driven to take part in using these digital resources and making them accessible to users and affects their level of confidence in using digital tools. However, this is only one of the private companies that provides digital services for libraries and is not representative of the whole Italian library sector.

Based on the interviews, users and librarians alike indicated a traditional view of libraries centred on the physical space possessing an impressive collection. Most had a fond view of this, and one respondent expressed nostalgic sentiments towards this perspective but understood that library services have to keep evolving to survive in the digital age. Regardless of age, this traditional image of the library was perpetuated across interviews. Italian R3 held a slightly negative view of librarians in that they were less relevant than the books themselves. While this does not indicate a positive relationship with the staff inside of libraries, this provides an opportunity for the librarian profile to expand beyond its relationship to books. Notably, the same interviewee suggested that their role should focus on controlling and training for a new digital reality. The controlling dimension would focus on setting up filters on digital content and tools so that library users, children especially, are not exposed to content that would be unsafe for them to see. The training dimension would allow library professionals to teach users about the new digital reality and help people adjust to it and know how to navigate it.

VI. Latvia

Latvian library professionals often have to learn on the job and rely on more experienced colleagues for new skills. Latvian R1 and R4 both noted that they acquired their digital skills in this way. While some respondents (Latvian R1, R4) seemed uncomfortable at first with their lack of digital knowledge and skills, they seemed to be satisfied with the informal training they received through their colleagues. Latvian R5 also lacked confidence in their digital skills and felt that the support they received through their librarian was a great way to acquire the skills and confidence to use their smartphone and computer. Latvian R2 mentioned that they had been able to learn through self-study and courses prior to entering the library sector. They also noted that they had actively taken courses as a librarian to acquire new digital skills. The respondents for these interviews range in their exposure to digital technologies prior to entering the library sector with some having little to no digital skills before entering the library sector and others having had some exposure. Overall, their attitude towards technology in the library is positive and they recognize that traditional library services can and should be provided digitally and some are interested in using technology more extensively in the library space.

Latvian librarians expressed confidence in cybersecurity, information and date literacy, and communication for cooperation. They felt they had weaker skills in digital content creation, copyright and licensing issues, security, and problem solving. Latvian R5, who is a library user, also mentioned that problem solving is a topic area they struggle with. Interestingly, there is a widespread view that having one staff member with the required digital skills is enough for libraries and other library professionals can refer to them. However, most respondents indicated that they turned to this person for specialised questions and issues.

Various learning needs were identified by the respondents which include:

- Knowledge of innovations to simplify workload
- Creative skills for events and library services – this was mentioned as one of the respondents indicated that library is still perceived as a traditional service and users can deal with traditional library services such as book lending by themselves
- Critical and creative thinking
- Project management skills
- Practical application of theoretical knowledge
- Pedagogical skills
- Cybersecurity
- Adapting to societal shifts

When asked about the future services a library should look to integrate in its service offers one respondent was interested in creating Makerspaces however, they felt their library is too physically small to host a dedicated Makerspace. This would suggest that innovative thinking skills and networking skills may be needed in the library sector for them to expand their services through other partners who could support such initiatives.

Comparative analysis results

These interviews yielded interesting insights into the European library sector and the attitudes towards the digital transformation within libraries. On the whole, the interviewees felt that upskilling was necessary throughout a library professional's career in order to stay up to date with technological changes and have the relevant knowledge. Several respondents noted that while librarians may feel confident in their media literacy abilities, they still need to partake in training regularly to have knowledge and skills relevant to the digital landscape. On the whole, many respondents noted an issue with the lack of digital skills in libraries as there is a reliance on one or two staff members with the relevant skills. Therefore, establishing a strong foundation in basic digital skills in all staff members is needed to answer user queries and ensure a level of digital autonomy in library professionals.

Notably some respondents felt that librarians need to be pushed to participate in non-conventional training. Indeed, one European respondent noted that many librarians prefer to stay in their comfort zone and will attend training boosting their existing skill set more willingly than opportunities targeting new skill sets.

There were mixed attitudes among participants regarding the place of the digital transformation in the library sector. Some felt open and positive to it whereas others expressed fear and shame at not being in touch with digital tools. One Italian respondent held a traditional view of librarianship and disregarded e-reading as a digital option that could be interesting to their users. This particular respondent was able to overcome their fear, distrust, and shame by attending various training courses encouraging them to see how digital tools could be applied in the library sector. Despite gaining confidence and seeing the application of digital tools in their library, this respondent noted that they were not comfortable organising big activities and preferred trialling new digital activities in smaller groups before transitioning to wider audiences. In Bulgaria, we note that library directors felt that their staff feared innovation in libraries which hampered the introduction of digital services in their environment. Additionally, there is a differing opinion as to how services and activities can be improved. Some Bulgarian respondents felt that funding should be used to purchase new equipment

and software whereas another respondent felt that it was more important to upgrade existing services.

A key issue remains in the project countries; librarianship is still partially seen as inherently tied to the collections a library possesses. In Italy in particular, users and librarians alike felt that the library should be a physical space with an impressive collection. A Greek respondent noted that while their work was primarily digital, they kept in mind the preference of using physical material to study and this influenced how they designed digital services. In Belgium, as automation begins to enter Flemish libraries, staff members are struggling with the free time that they now have and finding ways to fill that time.

Interestingly, interviewees noted that training courses as well as informal training done by colleagues boosted their digital competences enough to feel confident to provide digital support to their users. Additionally, one Italian respondent felt that there was a need for smaller "trial" activities before launching larger ones. This will be something to consider when designing the curriculum as to how the BIBLIO project can foster confidence between training participants and curate a supportive environment.

VET best practice interviews insights

Partners coordinated with VET partners within the consortium to carry out best practice interviews aiming to identify innovative teaching methods or programmes teaching new topics in the library sector. The topics were drawn from the previous research around training needs and skills gaps. Apart from PL2030, each VET partner was asked to conduct a minimum of three interviews with training providers aiming to establish the best practices in each country. As PL2030 did not have a Belgian counterpart to conduct the interviews on their behalf, it did not have to complete this task thus no insights from the Belgian landscape are available.

I. Bulgaria

Various types of vocational training best practices were identified in Bulgaria, see Annex 17 for a summary of these.

With the Bulgarian best practices, we can observe a clear need for digital skills in the workplace as most of these aim to equip professionals with these. Various elements stand out from these interviews. R1 noted that pre-testing of participants to measure the level of participants' digital skills and adjust the training accordingly was necessary to curate successful training experiences. Based on the feedback R1 received, participants indicated they preferred blended learning to meet work and personal commitments. By developing a platform that delivered the theoretical parts online and convening learners for face-to-face learning for important modules, R1 developed a programme that met these expectations. However, they note that in-person training is mandatory for production practice. R2 noted that their course offered daytime and evening classes as well as individual and independent learning which allowed participants to go through their lessons in absentia in line with a prepared programme. Students are allowed to progress onto the next module once they have completed a test. R2's vocational training programme consults with the employer to adjust the specifics of the training which covers basic digital skills such as Microsoft Word, Excel, PowerPoint etc as well as special training for various professions. Importantly, R2 noted that generally those looking to learn a whole new skill set or profession will favour in-person training whereas those who already work in a specific field or know a profession and want to acquire new skills relating to this will favour independent or individual learning. R3 designs a programme that is heavy on tasks and with a platform that is compatible with different types of devices. They aim to first upgrade ICT skills then distance learning. They want to provide a clear framework of obligations, a clear schedule. For those working in smaller, rural libraries access to training is often difficult. R3 has designed a course that blends specific methods of blended learning with distance learning. They also work closely with BLIA to reach these librarians and ensure they get a qualification and the relevant skills including digital skills needed for their work.

R1 noted that the success of their training opportunity was due to co-financing it received which made it easier to implement. However, they faced a limited implementation period which restricted the number of people who could access this training opportunity.

II. Greece

Various types of vocational training best practices were identified in Greece, see Annex 18 for a summary of these.

With the first best practice listed, the interviewee stressed that knowing how to design and analyse information systems is a cornerstone of information science and librarianship. Without this competence, library professionals will depend heavily on colleagues who have computer science knowledge.

When we dive into the second best practice identified, this training programme was provided by DOOR and aimed to prepare leading library employees with the leadership, creative, communication, and managerial skills needed to make their libraries successful. The programming itself places an emphasis on creativity to ensure that libraries and cultural organisations play a crucial role in the advanced information environment as well as a coordinating role for the libraries and cultural organisations of their region.

The final best practice has a much more flexible approach in terms of its programming. The Hellenic Academic Libraries Link (HEAL LINK) programme is decided by the Board of Directors. This covers webinars and workshops that are to be held during the year in various libraries or online. As no learning outcomes are predefined, in instances of emergencies, the Board is able to adapt the programme based on trends and the actions the consortium wishes to achieve.

III. Italy

Various best practices were identified in Italy which are summarised in Annex 19.

The best practices identified cover a variety of topics and aim to equip library professionals with the skills relevant to their working realities. Interestingly, the Sapere Digitale project emphasises cooperation between the participants. In doing so, they hope to encourage professionals from larger libraries to support workers from smaller ones. Ultimately, the Sapere Digitale project aims to develop a new professional figure in the Italian library sector that is similar to an art director. This person would possess the digital skills needed to retain some digital services and not outsource all to third parties. In a similar vein, the course on effective communication in libraries aims to address a skills gap including a digital competence gap. The provider of this training expressed frustration at the lack of funding available in libraries to pursue communication campaigns as this restricts their ability to use social media tools to their full extent.

The Biblionova training opportunities overlap on the information literacy aspect, however, their courses are intended to upskill experts. They tailor their digital competence programmes to the needs of individual students and avoid generalised courses that may not accurately respond to the professional needs. The digital librarianship course has a very different approach to how it trains by involving trainers from different backgrounds. This allows the programme to diversify the perspectives taught and introduce international models and experiences throughout the lessons.

Overall, prior to the COVID-19 lockdown, these trainings, except Sapere Digitale, seemed to emphasise in-person or blended training to facilitate practical activities. Only the digital librarianship training was a fully online experience. Interestingly, each best practice had a different approach to evaluations with the Sapere Digitale not implementing any and focusing on mutual information exchange whereas Biblionova had tutors regularly evaluate their participants.

IV. Latvia

Various best practices were identified in Latvia. These are summarised in Annex 20.

The first best practice identified in Latvia was provided with the objective of making digital upskilling in Latvia easily accessible to the wider population. The participants of this training noted that it would be incredibly difficult if not impossible to individually train every citizen and making "digital agents" such as journalists, librarians, teachers, and public sector employees that are trained in using these e-services would be a simpler far-reaching method. This project mapped where the trained employees were and made this data accessible to the public so that they could easily reach out.

The second best practice example identified is a formal education programme. The interviewee noted that it presented several challenges namely regarding:

- Flexibility
- Participants are taught with the library information system (LIS) Aleph which is only used in the National Library of Latvia (NLL) whereas other libraries use the Alise LIS
- Duration of the programme
- Different types of libraries needing different skills
- Age difference among learners
- Difference in professional experience among learners
- Digital skills gap among learners

However, several strengths were identified as well. The programme trains its participants in andragogy, the learners can learn from each other as a result of their different professional experiences, and the blended format allows learners to develop skills linked to self-directed learning and face-to-face learning. Finally, the interviewee establishes that this programme is highly trusted as it is held at the NLL which has well-trained staff and learners have access to material and technical support. Finally, this programme builds relationships with other Latvian libraries to provide internships.

Comparative analysis results

Topics

All the best practice interviews carried out address various areas of digital competence. In Bulgaria, there is a general sense of needing basic digital skills for work, whereas in other countries the topics addressed are aimed at improving library services and actions by upskilling specific areas of competence. These range from information, digital, and data literacy to forward-thinking leadership in libraries. In general, there is an acknowledgement that library services need to be more digital-oriented and library professionals need to be able to leverage digital tools to serve their communities. Interestingly, in Latvia, libraries are seen as "digital agents" that can reach a wide segment of the population and thus should be considered for citizen upskilling initiatives. This type of approach stands out amongst all the best practices as this intends to equip library professionals with recent knowledge about e-services and make them an access point for digitally excluded users.

Format

Based on these best practice interviews, there is a high need for blended learning opportunities to allow learners to balance professional and personal commitments. In light of the COVID-19 crisis,

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programmes with online components were able to continue the delivery of at least theoretical modules with the possibility of convening learners when possible at a later time. Only a few of the best practices identified has online-only formats and many included some practical activities as part of their curriculum. Thus, as the BIBLIO VET curriculum will involve practical activities, a blended format that aims to deliver theoretical aspects online and brings learners together for in-person practical activities seems to be the best format. Several interviewees from different countries pointed out that they felt the collaborative and supportive environment they fostered provided a good opportunity for learners to learn from each other and create a support network between libraries. While there is no specific factor or element that is attributed to this environment, the learning experience delivered by BIBLIO should encourage a similar collaborative approach to foster an inter-European community that can also exchange best practices from each country.

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Job mapping

The following template was designed for the BIBLIO project after consulting with the project partners. The template developed in the Mu.Sa project was used as a starting point which was then adapted to fit the needs of the BIBLIO project. The Mu.Sa project template was selected as an initial discussion point as it developed job profiles for the museum sector, which is often combined with the library sector. Indeed, the ISCO-08 classification 262 groups librarians, archivists, and curators together as they primarily work on the collection development and maintenance in libraries, museums, art galleries, and similar establishments.

As per the project proposal, the job profiles developed are at EQF level 5 to allow for a VET curriculum to be developed around them which the BIBLIO project will pilot in a later phase. Furthermore, these profiles were developed keeping in mind the different needs of each project country's library sector. This was done to ensure that the profiles could be translated and adapted to each country's professional context. The DigComp 2.1 headings for the areas of competence were used; however, these were adapted to fit each job profile's tasks and responsibilities and reflect the level of skill needed.

Job role profile description		
Title	*Name of this role*	
Description	*A summary of the role of the professional in the organisation, the rationale of the role. Summary statement presents shortly what the professional will do in their function. (Disclaimer: Role profiles are not job profiles, an employee in an organisation can have different roles, even if the employee holds a different job title)*	
Education field	*The provider of the role title - the educational programme/background*	
EQF level	*5*	
Tasks/ Key responsibilities	*What the professional will perform in their library. Outline the activities and their related outputs for which this role is responsible*	
Knowledge	Required	*The standard knowledge required for this role*
	Desired	*The wanted knowledge for this role*
DigComp 2.1 competences	Required	*The standard digital skills required for this role*
	Desired	*The wanted digital skills for this role*
Transversal and entrepreneurial competences	Required	*The standard transversal competences required for this role*
	Desired	*The wanted transversal competences for this role*
Environment	*Brief description of the role's working environment*	
KPIs	*Key Performance Indicators of the role in the organisation. Indicators that allow measurement of the deliverables of the role*	
Relationships	*Teams/services the profile collaborates with and reports to*	

Based on this template and the research conducted throughout this work package, the following job profiles were developed: "Community engagement and communication officer" and "Digital transformation facilitator"

I. Community engagement and communication officer

This job profile focuses on the communication skills needs and the community facilitation needs identified throughout the research. Consequently, there will be a high level of contact with library users as well as local stakeholders to create a network for the library to use in community facilitation activities. The main objective for this profile is to focus on developing services and activities based on their community's needs including segments of the community that are not library users yet and thus build a network of local stakeholders they can involve in different activities and services to support their community. As part of this they will work on communicating with their target groups through online and offline means.

The digital skills needed for this profile converge around the communication tasks and researching community needs. This profile needs to understand different communication techniques both online and offline, information, data, and media literacy to avoid the spread of disinformation, and graphic design skills to produce content to use in communication campaigns. While they do not need to be experts, they must be at the "intermediate" DigComp 2.1 level at the very least.

There are many transversal competences this profile has and must develop. As this profile focuses on service development, it is crucial that this profile is able to listen actively and develop creative solutions to their community's needs. They must also be able to leverage local stakeholders in their community to involve in their community facilitation activities which requires strong networking skills. Furthermore, as they will be frequently in contact with their community, they must have strong interpersonal skills and will need strong pedagogical, coaching, and mentoring skills to support their community.

Job role profile description	
Title	*Community engagement and communication officer*
Description	*The community engagement and communication officer is a flexible, proactive, and digitally aware worker. They use local and national data and information from community engagement to assess community needs and set priorities for outreach services. The community engagement and communication officer reaches out to underserved communities to identify, pilot, and establish non-building based library service delivery models that further engagement, and address barriers to library use, literacy and digital inclusion. They analyse, interpret, and act upon data and trends in library engagement and outreach, both locally and nationally. They work with communities and engage people outside the library walls through various channels, including neighbourhood meetings, community-based organizations and groups, networking, social media and other communication methods.* *(Disclaimer: Role profiles are not job profiles, an employee in an organisation can have different roles, even if the employee holds a different job title)*
Education field	*Communications, marketing, Library and Information Science (LIS), public relations, education*

EQF level	*5*	
Tasks/ Key responsibilities		● *Collaborate to develop and implement a communication strategy boosting user engagement online and in-person and reaching new audiences* ● *Collaborate to design user-centred digital services engaging citizens for the development of innovative cultural activities* ● *Manage information flows to meet needs for information content* ● *Communicate, network, and manage relationships with external stakeholders that can be involved in the library's activities* ● *Measure and evaluate library services and user uptake of these and suggest improvements where possible* ● *Assess community needs and design services around these* ● *Communicate with users on library services and respond to user inquiries about library services* ● *Organise ways for users to provide feedback on library services and assess user feedback* ● *Identify local issues relevant to their community and facilities activities around this online and offline* ● *Organise and manage e-facilitation activities tailored to target groups' needs*
Knowledge	Required	● *User needs analysis and community assessment* ● *Written and verbal communication skills including copywriting and knowledge of various communication techniques* ● *Marketing and communication tools, including social media, knowledge* ● *Audience development strategies* ● *Basic graphic design tool knowledge* ● *Legal aspects in Copyright, Creative Commons* ● *Knowledge of web publication tools* ● *Knowledge of measurement and evaluation of library services methodologies* ● *Knowledge about services in the library and information field and recent developments in these fields as well as development of public services* ● *Basic knowledge of social and data analysis* ● *Basic knowledge of user-profiling technologies* ● *Knowledge of Office Suite* ● *Knowledge of facilitation techniques including e-facilitation*
	Desired	● *Comprehensive social research knowledge* ● *Knowledge of human information behaviour and information systems design* ● *Basics of sociology and social psychology*
DigComp 2.1 competences	Required	***Information, data, and media literacy*** *1.1 - Browsing, searching, and filtering data, information, and digital content* ● *Knowledge of trusted data sources and databases for news and*

other information as well as navigating these
- *Knowledge of how to research efficiently in online search engines and explaining this to users and colleagues*

1.2 - Evaluating data, information, and digital content
- *Capacity to review content for disinformation, fake or biases before sharing it online to users or colleagues*

1.3 - Managing data, information, and digital content
- *Ability to use various tools to store information and retrieve it when needed to solve local issues*

Communication and collaboration through digital technologies

2.1 - Interacting through digital technologies
- *Knowing how to interact with library users and the wider community through digital technology and which digital communication tool to use for their work*

2.2 - Sharing through digital technologies
- *Understanding how to share digital content in a shared workspace whether online or offline*

2.3 - Engaging in citizenship through digital technologies
- *Management of online interactions including frustrating and offensive ones professionally and politely*
- *Able to develop, in collaboration with relevant colleagues, activities that encourage (digital) citizenship for their users*

2.4 - Collaborating through digital technologies
- *Knowing how to interact and collaborate with colleagues using digital technologies*

2.5 - Netiquette
- *Able to manage frustrating or rude online interactions in a professional way. Knows when to take further actions if there are constant issues with specific online users*

2.6 - Managing a digital identity
- *Able to manage the library's digital identity including avoiding creating spam when promoting online and able to protect private data*
- *Able to support library community and users in safe use and protection of their digital identity*

Digital content creation

3.1 - Developing content
- *Can use digital technologies (hardware and software) and graphic design tools to create posters, flyers, online images and videos to use in the library's communication activities*
- *Able to create and interpret online surveys and polls in order to collect community opinions*
- *Basic knowledge of processes for digitizing cultural heritage*

3.2 - Integrating and re-elaborating digital content
- *Alteration of existing copyright-free content to adapt to new contexts or needs*

3.3 - Copyright and licenses

		Knowledge of image banks to use in the library's activities as well as how to search for copyright-free images ***Safety*** *4.1 - Protecting devices* *Know-how regarding the protection of the library's social media accounts and steps to take if hacking attempts are observed* *4.2 - Protecting personal data and privacy* *Knowledge of protecting colleagues' personal data if publishing content that includes them* *Respect of GDPR and Right to be Forgotten for colleagues and users* ***Problem solving*** *5.2 - Identifying needs and technological responses* *Identification of user needs and communication of possible solutions to these via the library's communication channels* *5.3 - Creatively using digital technology* *Identification of opportunities to use the library's digital tools in new ways to reach users more meaningfully/reach new users*
	Desired	***Digital content creation*** *3.4 - Programming* *Basic knowledge of programming languages to solve minor issues on their library's website* ***Safety*** *4.3 - Promoting health and well-being* *Able to identify local issues focused around health and well-being and can suggest activities that would encourage public awareness of this* *4.4 - Protecting the environment* *Knowledge of environmental issues and local concerns and able to suggest activities that would foster community discussions around these* ***Problem solving*** *5.1 Solving technical problems* *Able to identify simple technical issues and solve them without depending on a specialist where possible. Also able to identify an issue that cannot be troubleshooted on their own and soliciting help from a specialist when needed* *5.4 - Identifying digital competence gaps* *Capable of identifying where training may be needed for themselves and the wider library community and finding or offering relevant training initiatives*
Transversal and [entrepreneurial](#) competences	Required	*Creativity* *Learning through experience* *Planning & management* *Taking the initiative* *Motivation & perseverance* *Mobilising resources*

		Spotting opportunities and strategic thinking *Marketing, advocacy, promotion skills* *Time management* *Integrity* *Leadership and change facilitator* *Networking skills including relationship management* *Valuing ideas* *Mobilising others* *Interpersonal skills (communication and active listening, problem solving and decision making, conflict solving and management, negotiation, emotional intelligence, collaboration with others)* *Mentoring, coaching, and pedagogical skills*
	Desired	*Self-awareness & self-efficacy* *Coping with uncertainty, ambiguity & risk* *Fundraising skills and knowledge* *Ethical and sustainable thinking* *Design thinking*
Environment		*This profile is an external facing role and will work in various environments. Due to this, it can fit within different types of libraries. The high levels of interaction both online and offline create an environment needing a high level of adaptation and understanding of the limits and advantages in each of these. This profile will have to work in tight collaboration with other teams and external stakeholders occasionally to improve existing services and/or develop new services that respond to user needs in the digital era. Furthermore, as this profile will reach out to new segments of their library community and will often be in contact with library users, they may occasionally have to navigate sensitive issues within the community and must be able to respond appropriately and professionally.*
KPIs		● *Growth of library's digital presence including the number of followers on social media, website visits & time spent on website* ● *Development of new digital activities for audience development* ● *Evaluation of responses and uptake from users towards new and existing digital activities* ● *Intake of new users from new demographics (identified through new registrations)* ● *Number of new services or improvements to existing services suggested and designed* ● *Number of users consulted regarding library services and user needs* ● *Assessment of user experience and satisfaction regarding facilitation of activities and services implemented in the library*
Relationships		***Reports to*** *Head of communication and head of services* ***Interacts with*** *ICT team* *Customer service team* *Events/activities team* *Management team*

II. Digital transformation facilitator

This profile was developed as a technical profile that would provide digital support in different types of libraries. Specifically, this profile will help the library and their colleagues transition into the digital era. They will focus on supporting the implementation of new digital processes in the library whether that is regarding library systems, digital work tools for the staff, research and training, or digitisation. Thus, the DigComp 2.1 headings are used in this profile as well however, there is a higher expectation in terms of the level of proficiency that this profile must have.

As this is a facilitator profile, the transversal skills they must have focus on being able to teach colleagues to use new digital technology which requires strong interpersonal skills and pedagogical, coaching, and mentoring skills. Furthermore, as they work on digitising collections in their library, they will need the digital skills to achieve this as well as the communication skills to explain how to access and use these resources to both colleagues and library users. Finally, a digital transformation facilitator must stay informed on the developments in their sector and devise ways for them to be integrated successfully into their library where possible. For this profile, this would be the cultural sector and there would need to be constant monitoring of how this sector evolves including developments in the digital cultural heritage sector and how this applies to the library sector.

Job role profile description	
Title	*Digital transformation facilitator*
Description	*The digital transformation facilitator is a flexible and proactive worker with the capacity to support the library team in the transition to the digital era. They will provide technical support to their colleagues and the library's activities as it adopts new digital tools. They are able to use online collaboration tools and platforms, design and/or select content and services to facilitate:* ● *project management tasks for events, activities, and other library projects* ● *library systems management tasks* ● *research and training activities* ● *workflow efficiency between teams and overall team management* *They also support the cataloguing, archiving and digitisation of books and documents, and the curation of digital resources and collections.* *(Disclaimer: Role profiles are not job profiles, an employee in an organisation can have different roles, even if the employee holds a different job title)*
Education field	*Humanities, IT, Library and Information Science (LIS)*
EQF level	*5*
Tasks/ Key responsibilities	● *Support the implementation and development of internal digital processes including but not limited to library management processes and digital projects* ● *Support colleagues in the use of new digital tools internally including using digital technology for communications and content production*

Knowledge		● *Communicate with digital material providers and cultural heritage institutions* ● *Produce digital content such as videos, podcasts etc to use in the library's digital and in-person activities* ● *Prepare and evaluate items for digitisation ensuring the documents' integrity and safety* ● *Selection and application of the proper tools and solutions to digitise resources* ● *Ensure the storage and preservation of digital resources according to the standards and norms set in place nationally and internationally* ● *Digitise documents and the library's collection, provide contextual information and take care of metadata according to recognised international standards and open data requirements*
	Required	● *Knowledge of library systems management* ● *Knowledge of widespread systems modelling techniques and development methodologies* ● *Knowledge of graphic design tools* ● *Knowledge of digital content creation methodology and tools including production of videos, podcasts and other digital content* ● *Knowledge of cultural sector including digital cultural heritage and its developments* ● *Knowledge about digitisation process for books and documents* ● *Knowledge about digital objects and resources within the library sector* ● *Knowledge about file compression including of digital formats (TIFF, JPG, PDF, FITS) and high quality images and their updated standards (IIIF)* ● *Knowledge about technical requirements for different types of digital objects to achieve the long-term preservation of digital resources and selection* ● *Knowledge of copyright legislation & creative commons and legal aspects of repository, intellectual property rights issues and open access strategies* ● *Bibliographic, archival description and cataloguing in according to international standards* ● *Knowledge of metadata standards, especially open data, and capacity of select, tracing schema and apply them in several contexts*
	Desired	● *Knowledge of specific domain (art, history, literature)* ● *Knowledge about acquisition, information and knowledge organisation* ● *Knowledge about user analysis and information services* ● *Knowledge of digital humanities* ● *Relational databases and content management systems* ● *Knowledge of Linked Data, Open Data*
DigComp 2.1 competences	Required	***Information, data, and media literacy*** *1.3 - Managing data, information, and digital content* ● *Ability to organise digital resources into databases and knowing*

how to navigate and retrieve these when needed
- Management of databases and analysis of user behaviour and use of digitised resources
- Ability to freely use and interpret open data of digital resources and collections (such as statistical data bases etc)

Communication and collaboration

2.2 - Sharing through digital technologies
- Able to show colleagues where digitised content is stored and how to access this and navigate the databases efficiently
- Knows how to use various digital tools to share content with colleagues and explain to colleagues how to use these

2.4 - Collaborating through digital technologies
- Able to communicate with colleagues across domains and staff groups and library users through appropriate means about digitised resources and the databases they are part of
- Able to use new digital tools in their work and support colleagues in adopting these new tools

Digital content creation

3.1 Developing content
- Able to digitise different materials into appropriate and relevant formats

3.2 Integrating and re-elaborating digital content
- Able to make digitised resources available to colleagues and other interested parties so that they are able to reuse in new and innovative ways.

3.3 - Copyright and licenses
- Understand how copyright legislation, creative commons, legal aspects of repository, intellectual property rights issues and open access strategies are applied in the library context

3.4 - Programming
- Able to use mark-up language such as XML on digitised documents and books in a relevant way
- Able to trace open data schema conform to standards for indexing digital resources

Safety

4.1 - Protecting devices
- Able to maintain the security protocols in place to protect copyrighted documents and databases where digital resources are kept
- Able to help colleagues set up security measures to protect their devices from phishing and other security issues

4.2 - Protecting personal data and privacy
- Understands and is able to protect the privacy of people in digitised documents and those using digitised resources

Problem solving

5.1 - Solving technical problems
- Able to identify simple technical issues and solve them without

		depending on a specialist where possible. Also able to identify an issue that cannot be troubleshooted on their own and soliciting help from a specialist when needed *5.2 - Identifying needs and technological responses* ● *Able to identify existing and emerging technological needs (e.g.: accessibility) and suggest digital solutions to address new needs* *5.3 - Using technology creatively* ● *Able to identify new tools relevant to the library's activities and support colleagues as they integrate this new tool in their work* *5.4 - Identifying digital competence gaps* ● *Able to identify their own and their colleagues' digital gaps and can suggest training opportunities that would help strengthen the technical capacities within the library*
Transversal and entrepreneurial competences	Desired	***Safety*** *4.4 - Protecting the environment* ● *Aware of the impact digital storage has on the environment and can suggest ways to lower this*
	Required	*Mobilising resources* *Motivation & perseverance* *Vision* *Creative thinking skills* *Taking the initiative* *Planning & management* *Coping with ambiguity, uncertainty & risk* *Problem solving* *Time management* *Self-awareness & self-efficacy* *Mentoring, coaching, and pedagogical skills* *Decision making* *Interpersonal skills (communication and active listening, problem solving and decision making, conflict solving and management, negotiation, emotional intelligence, collaboration with others)*
	Desired	*Learning through experience* *Ethical & sustainable thinking* *Valuing ideas* *Precision & accuracy* *Advocacy, promotion, marketing and raising awareness*
Environment		*This profile can work in different types of libraries to support their transition into the digital era. This role has a high technical component and therefore will collaborate with colleagues from other teams to support them when implementing new library management, digitisation, and digital creation processes and using new digital tools. This environment may be challenging as colleagues may have lower digital skills and knowledge than the facilitator or may be opposed or fear using new tools in their work. This will require adaptation and patience and the facilitator must be able to provide a supporting and empowering environment for their colleagues to encourage the transition into the digital era.* *Depending on the type of library, the digitisation component of this role will differ*

	slightly. For example, the public library environment in which the profile could work in could have collections of several typologies: rare books, archival documents, prints (etc.). Regardless of the type of library, they would work closely with the team responsible for collections and would digitise the material in a strategic manner including their metadata and primary research data. They would work to make these digital collections known to their communities especially the research community.
KPIs	*Number of master files and access files* *Number of digital projects begun, implemented, completed, failed* *Number of digital issues solved* *Quality of digitised resources and use of these by colleagues and library users* *Participation from users in digital activities and projects and satisfaction based on evaluation* *Production of new digital content pieces that can be used by colleagues in the library's activities and services* *Evaluation of colleagues' confidence in using new technology*
Relationships	*Reports to:* *Head of digital* *Interacts with:* *Communications services* *Collections services* *Management team* *Digitisation team*

Work package results

This report presents all the research activities undertaken by the partners during Work Package 2.

They focus on presenting the national context for Belgium, Bulgaria, Greece, Italy, and Latvia to understand the role of the library in the community and existing challenges. Key skills gaps emerging from this desk research activity indicate a need to train library professionals to develop community-oriented services and have the pedagogical skills needed to equip library users with the skills and knowledge they need to access information and navigate the information landscape.

The survey and in-depth interviews build up the training needs for the sector by involving library professionals directly in elaborating what their training needs are and by asking users, training providers, and library professionals how they see the sector evolve. These reinforced the initial results of the desk research by indicating that stronger digital skills were needed in the workforce to make sure that more than one employee in a library had the relevant skills. Furthermore, many library professionals indicated a desire to be trained in community facilitation and communication both online and offline. The surveys indicated that there are three areas of weakness when it comes to digital competences:

1. Safety
2. Digital content creation
3. Problem solving

Across all partner countries, librarians self-evaluated this as one of their weaker DigComp 2.1 competences. Very few respondents indicated a level above the "basic user" one. The weaknesses identified in digital content creation and problem solving differed across respondent profiles and countries. However, these tie into how communication is carried out in the library as well as the use of technology to solve problems linked to library activities and internal digital processes.

The best practice interviews identified elements from digital training programmes that were likely to positively impact the learning experience. Overall, the best practices identified mainly relied on a blended learning approach. This approach was preferred by learners as it allowed them to balance their commitment to the training and life and work commitments. Additionally, various learners indicated that a blended learning format where learners had practical activities which allowed them to convene together fostered a collaborative, nurturing, and supportive environment that helped them succeed in their training.

Two distinct job profiles have been developed based on the training needs evoked by library professionals in the survey and in-depth interviews: Community Engagement and Communication Officer, and Digital Transformation Facilitator. The job profiles detailed in this report intend to respond to the communication and the community facilitation training needs for the former and the digitisation and technical support needed for the latter. They aim to boost digital skills in all library professionals to at least an "intermediate" level across all DigComp 2.1 areas. By enhancing digital and transversal skills that library professionals have, this will help the sector transition into the digital era and understand how to respond to new developments as technology continues to develop.

While these job profiles were developed in consideration with national contexts from each of the project countries, it is important to consider that funding is an issue for library sectors across Europe

and there will be a need for library professionals to engage with digital developments strategically. As the job vacancy analysis has revealed, this sector does not hire a lot which will create a human resource need and will influence priorities in response to the digital transformation. Indeed, depending on the type of library and funding available, a profile may be more sought after than another due to the tasks it can perform. Furthermore, the library sector may not be an attractive sector for many as noted in the Bulgarian desk research. Thus, there is a need to make the library sector more interesting for newer profiles that can help in the transition into the digital era.

Annexes

Annex 1 – Librarian job profiles in the Regulated Professions database

Croatia

URL	https://ec.europa.eu/growth/tools-databases/regprof/index.cfm?action=regprof&id_regprof=37726&id_profession=8003&tab=countries&quid=2&mode=asc&pagenum=1
Job title	Certified Librarian
Qualification	Diploma from post-secondary level (more than 4 years)
Activities	- Providing information to users and assist users in finding information and notify users of existing services in the library and beyond, including a web environment - Systematic monitoring of printing and publishing - Participation in the preparation of studies, plans, projects and programs - Providing expert information - Identification of relevant data and electronic sources of information on the network and operational choices supply the required materials - Creating a directory of suppliers and other partners in the procurement - Creating a bibliographic description for serials - Re-cataloguing, re-cataloguing the template in hand - Providing bibliographic information and referral; topical search - Building fund appropriate areas - Monitoring of user needs and the development of proposals for procurement - Making proposals for withdrawing books from the closed store - Selection publications for special exhibition - Making exhibition catalogue thematic exhibitions and publishing - Editing exhibition setup, and set of thematic and publishing exhibitions - Organization of complete or partial audit of the fund and the preparation of reports on the state of fund - Alignment proposals for the procurement of lost items and missing estimate - Record keeping and surveillance the release of archive material for processing and protection

URL	https://ec.europa.eu/growth/tools-databases/regprof/index.cfm?action=regprof&id_regprof=37727&id_profession=8003&tab=countries&quid=2&mode=asc&pagenum=1
Job title	Librarian
Qualification	Post-secondary diploma (3-4 years)
Activities	- Assisting and providing information to users - Receiving, sorting and delivering material for further processing - Keeping records of internal structure for processing - Checking the records of cataloguing units in order to prepare material for further processing - Providing materials to users and managing the user records - Creating a bibliographic description for serials (printed) - Re-cataloguing the template in hand

- All activities related to work with publishers
- Drafting contracts and revising data, cataloguing new titles (HTML), input and control of records
- Editing and organizing bookshelves in library by signatures
- Providing help with databases and finding information
- Viewing the damaged items to determine the integrity of the volumes
- Comparing harder damaged unique copies with the archive one before restoration
- Preparing the oldest periodicals copies for restoration works
- Distributing and selling all editions of the library
- Performing all additional organizational tasks

URL	https://ec.europa.eu/growth/tools-databases/regprof/index.cfm?action=regprof&id_regprof=37729&id_profession=8003&tab=countries&quid=2&mode=asc&pagenum=1
Job title	Library assistant
Qualification	Certificate attesting the completion of a secondary course
Activities	- Providing information, services and support to users - Daily care for the physical protection of materials and its organization on the shelves - Downloading, sorting and forwarding shipments - Receiving, inventory and advertising publications and electronic publications - Designation of the current structure (Quota currents) - Providing help in the organization and implementation of seminars, courses, conferences and other gatherings - Receiving, inventory and making lists for ordering books, periodicals and electronic databases - Making bibliographic descriptions of simple serial print publications - Re-cataloguing with the model in hand - Continuation, processing and signing publications - Entering corrections in bibliographic records - Working on the indexes of authors and titles - Controlling representation in holdings - Maintaining repository - Isolating and keeping records of the damaged material and sending it to protection

Hungary

URL	https://ec.europa.eu/growth/tools-databases/regprof/index.cfm?action=regprof&id_regprof=29167&id_profession=8003&tab=countries&quid=2&mode=asc&pagenum=1
Job title	Librarian
Qualification	Diploma from post-secondary level (more than 4 years)

Activities	- Library and information specialists are employed at various types of libraries and institutions providing information services, as well as at jobs requiring professional knowledge and skills - They must be able: to manage storing information, to collect, catalogue and provide library materials, to organise and operate library and information services, using modern information technology, including computerised information systems.

Iceland

URL	https://ec.europa.eu/growth/tools-databases/regprof/index.cfm?action=regprof&id_regprof=2888&id_profession=8003&tab=countries&quid=2&mode=asc&pagenum=1
Job title	Librarian
Qualification	Diploma of post-secondary level (3-4 years)
Activities	- Librarians work on administration, gathering, organizing, preservation and dissemination of information, both electronically, on micro-films and on paper, published and non-published material - They also work as teachers and trainers in using information and knowledge.

Slovakia

URL	https://ec.europa.eu/growth/tools-databases/regprof/index.cfm?action=regprof&id_regprof=5923&id_profession=8003&tab=countries&quid=2&mode=asc&pagenum=1
Job title	Professional librarian
Qualification	Certificate attesting the completion of a secondary course
Activities	Secure the operation of libraries, including searching out and providing information on the book collection and management of the users.

Slovenia

URL	https://ec.europa.eu/growth/tools-databases/regprof/index.cfm?action=regprof&id_regprof=6134&id_profession=8003&tab=countries&quid=2&mode=asc&pagenum=1
Job title	Librarian
Qualification	Diploma of post-secondary level (3-4 years)
Activities	N/A

URL	https://ec.europa.eu/growth/tools-databases/regprof/index.cfm?action=regprof&id_regprof=6619&id_profession=8003&tab=countries&quid=2&mode=asc&pagenum=1
Job title	Librarian
Qualification	Certificate attesting the completion of a secondary course
Activities	N/A

URL	https://ec.europa.eu/growth/tools-databases/regprof/index.cfm?action=regprof&id_regprof=30029&id_profession=8003&tab=countries&quid=2&mode=asc&pagenum=1
Job title	School librarian
Qualification	Diploma from post-secondary level (more than 4 years)
Activities	School librarian is responsible for the school library, supplies it with educational library material, processes, represents and lend the material, performs bibliopedagogical activities for pupils and students, motivates them to read, assists them in selecting and searching literature and information, advises education staff in the selection of materials for teaching

URL	https://ec.europa.eu/growth/tools-databases/regprof/index.cfm?action=regprof&id_regprof=6444&id_profession=8003&tab=countries&quid=2&mode=asc&pagenum=1
Job title	Senior library assistant
Qualification	Diploma (post-secondary education)
Activities	N/A

United Kingdom

URL	https://ec.europa.eu/growth/tools-databases/regprof/index.cfm?action=regprof&id_regprof=3376&id_profession=8003&tab=countries&quid=2&mode=asc&pagenum=1
Job title	Librarian
Qualification	Diploma of post-secondary level (3-4 years)
Activities	Manage knowledge and information

Annex 2 – mapping of ESCO occupational profiles in the library sector

Job title	Gallery, museum and library technicians
ISCO-08 code	3433
ESCO level	N/A
Description	Gallery, museum and library technicians prepare artworks, specimens and artefacts for collections, arrange and construct gallery exhibits, and assist librarians to organize and operate systems for handling recorded material and files
Tasks & responsibilities	● Mounting and preparing objects for display ● Designing and arranging exhibit furnishings, display cases and display areas ● Assisting in setting up lighting and display equipment ● Receiving, shipping, packing and unpacking exhibits ● Ordering new library materials and maintaining library records and circulation systems ● Cataloguing printed and recorded material ● Entering data into databases and editing computer records ● Operating audio-visual and reprographic equipment ● Searching and verifying bibliographic data
URL	https://ec.europa.eu/esco/portal/occupation?uri=http%3A%2F%2Fdata.europa.eu%2Fesco%2Fisco%2FC3433&conceptLanguage=en&full=true#&uri=http://data.europa.eu/esco/isco/C3433

Job title	Librarians, archivists and curators
ISCO-08 code	262
ESCO level	N/A
Description	Librarians, archivists and curators develop and maintain the collections of archives, libraries, museums, art galleries and similar establishments.
Tasks & responsibilities	● Appraising or developing and organising the contents of archives and artefacts of historical, cultural and artistic interest and ensuring their safekeeping and preservation ● Organizing the collections of and exhibitions at museums, art galleries and similar establishments ● Developing and maintaining the systematic collection of recorded and published material and making it available to users in libraries and related institutions ● Preparing scholarly papers and reports ● Conducting research
URL	https://ec.europa.eu/esco/portal/occupation?uri=http%3A%2F%2Fdata.europa.eu%2Fesco%2Fisco%2FC262&conceptLanguage=en&full=true#&uri=http://data.europa.eu/esco/isco/C262

Job title	Librarians and related information professionals
ISCO-08 code	2622
ESCO level	N/A
Description	Librarians and related information professionals collect, select, develop, organize and

	Title:	**Librarianship in Europe – mapping professional needs**
	Authors:	Tiana Zignani / PL2030, Flavia Massara / ICCU, Aneta Doncheva, Spaska Tarandova / GLBF, DAISSy Research Group / HoU, Baiba Holma, Daina Pakalna / KISC

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	maintain library collections and other information repositories. They organize and control other library services and provide information for users
Tasks & responsibilities	- Organizing, developing and maintaining a systematic collection of books, periodicals and other printed, audio visually and digitally recorded material - Selecting and recommending acquisitions of books and other printed or audio visually and digitally recorded material - Organizing, classifying and cataloguing library material - Managing library borrowing and interlibrary loan facilities and information networks - Retrieving material and providing information to business and other users based on the collection itself or on library and information-network systems - Conducting research and analysing or modifying library and information services in accordance with changes in users' needs - Devising and implementing schemes and conceptual models for the storage, organization, classification and retrieval of information - Preparing scholarly papers and reports - Performing manual, online and interactive media reference searches, making interlibrary loans and performing other functions to assist users in accessing library materials
URL	https://ec.europa.eu/esco/portal/occupation?uri=http%3A%2F%2Fdata.europa.eu%2Fesco%2Fisco%2FC2622&conceptLanguage=en&full=true#&uri=http://data.europa.eu/esco/isco/C2622

Job title	Big data archive librarians
ISCO-08 code	3433
ESCO level	5
Description	Big data archive librarians classify, catalogue and maintain libraries of digital media. They also evaluate and comply with metadata standards for digital content and update obsolete data and legacy systems
Tasks & responsibilities	N/A
URL	https://ec.europa.eu/esco/portal/occupation?uri=http%3A%2F%2Fdata.europa.eu%2Fesco%2Foccupation%2F4e4a1aa1-ca53-406e-9ca6-889d4621a0ed&conceptLanguage=en&full=true#&uri=http://data.europa.eu/esco/occupation/4e4a1aa1-ca53-406e-9ca6-889d4621a0ed

Job title	Library clerks
ISCO-08 code	4411
ESCO level	5
Description	Library clerks issue and receive library materials, sort and shelve books, sound and vision recordings, periodicals, journals, magazines and newspapers and provide general library information to library users
Tasks & responsibilities	- Issuing and receiving library books and other materials - Placing books and other library materials on shelves - Performing clerical activities such as manual and electronic filing, word

	processing and occasional typing
	● Maintaining journal subscriptions
	● Assisting library users in accessing basic library materials and making interlibrary loans
	● Maintaining library records relating to the acquisition, issue and return of books and other materials
URL	https://ec.europa.eu/esco/portal/occupation?uri=http%3A%2F%2Fdata.europa.eu%2Fesco%2Fisco%2FC4411&conceptLanguage=en&full=true#&uri=http://data.europa.eu/esco/isco/C4411

Job title	Library assistant
ISCO-08 code	4411
ESCO level	5
Description	Library assistants assist the librarian in the day-to-day activities of the library. They help clients find the materials they need, check out library materials and restock the shelves
Tasks & responsibilities	N/A
URL	https://ec.europa.eu/esco/portal/occupation?uri=http%3A%2F%2Fdata.europa.eu%2Fesco%2Foccupation%2F37b15470-3b2d-4ae0-816c-c7c06ed15c99&conceptLanguage=en&full=true#&uri=http://data.europa.eu/esco/occupation/37b15470-3b2d-4ae0-816c-c7c06ed15c99

Job title	Library manager
ISCO-08 code	1349
ESCO level	5
Description	Library managers supervise the correct usage of library equipment and items. They manage the provided services of a library and the operation of the departments within a library. Library managers also provide training for new staff members and manage the budget of the library
Tasks & responsibilities	N/A
URL	https://ec.europa.eu/esco/portal/occupation?uri=http%3A%2F%2Fdata.europa.eu%2Fesco%2Foccupation%2F24d39e12-e104-49d3-8224-8b7a5f9b99d1&conceptLanguage=en&full=true#&uri=http://data.europa.eu/esco/occupation/24d39e12-e104-49d3-8224-8b7a5f9b99d1

Job title	Librarian
ISCO-08 code	2622
ESCO level	5
Description	Librarians manage libraries and perform related library services. They manage, collect and develop information resources. They make information, available, accessible and discoverable to any kind of user
Tasks &	N/A

responsibilities	
URL	https://ec.europa.eu/esco/portal/occupation?uri=http%3A%2F%2Fdata.europa.eu%2Fesco%2Foccupation%2F60f7eb23-a7ea-4cbe-98a5-1248291f62d5&conceptLanguage=en&full=true#&uri=http://data.europa.eu/esco/occupation/60f7eb23-a7ea-4cbe-98a5-1248291f62d5

Annex 3 – mapping of library-related qualification on ESCO portal

Hungary

Title	Librarian and Information Scientist
Awarding body or competent authority	- Pécsi Tudományegyetem - University of Pécs - Debreceni Református Hittudományi Egyetem - Reformed Theological University of Debrecen - Eötvös Loránd Tudományegyetem - Eötvös Loránd University - Szegedi Tudományegyetem - University of Szeged - Eötvös József Főiskola - József Eötvös College - Debreceni Egyetem - University of Debrecen - Nyíregyházi Egyetem - University of Nyíregyháza - Kaposvári Egyetem - University of Kaposvár - Eszterházy Károly Egyetem - Károly Eszterházy University - Szent István Egyetem - Szent István University
EQF level	6
Formal or non-formal?	Formal
Description	The aim of the training is to train IT librarians who will acquire librarianship and up-to-date IT skills capable of fulfilling practical expertise in various types of libraries and information, information processing and dissemination organizations. They are capable of carrying out knowledge, information and cultural activities, providing assistance in digital literacy, information literacy and lifelong learning. They are prepared to continue their studies in a master's degree. Knowledge - Knowledge of the most important social, structural, economic, political and technological processes that influence the operation of a library specialty. - Is aware of the basic concepts of library and information science and the elements of a specialized vocabulary based on them. - Comprehensive knowledge of national and EU library, information and information management strategies, legal regulations, institutional systems, programs. - Is familiar with the principles of evaluation, selection, collection, form and content processing, use, operation, development, and provision and design of library services, of domestic and foreign documents and information. - Has an overview of the possibilities of using and utilizing IT and infocommunication tools, methods, techniques, principles of application, operation and development of computer information and information systems, as well as principles of creating electronic documents. - Knows the conceptual system of information literacy and digital competence and possesses a significant part of the conceptual knowledge. - Knows the basic methods and means of providing library services to disadvantaged social groups. - Knows the basic concepts and principles of communication, organization, marketing, communication and networking, planning, project management,

	quality management, human resource development in order to fulfil his tasks related to information and knowledge organization. ● Thorough knowledge and adequate problem solving techniques in library conflict management. ● Knows the most important sources of literature, knowledge acquisition and problem solving methods to meet the information needs of the library field and its border areas.
Competences acquired	● Able to analyse thoroughly and in detail the facts he / she has learned or revealed in his / her work; ● Adaptations are made between the context of the library area, the processes that determine the operation of the library area, national and EU library, information and information economy strategies, legal regulations, institutional systems and programs. ● The basic concepts of library and information science and the elements of a specialized vocabulary based on them appear in their everyday professional vocabulary and can be used with confidence. ● Ability to apply his / her knowledge effectively in the field of library work, collection organization, information and document processing, information retrieval, information and document service and other library services. ● Ability to master the use of IT and infocommunication tools in the field of libraries and the use of computerized information systems. ● Ability to understand and interpret texts, tables, data sets, visual texts divided by visual signs, typographic tools, icons on a high level. ● Be able to play an active role in traditional and online community development, in empowering disadvantaged social groups, and in supporting lifelong learning. ● Be able to navigate between services provided to disadvantaged social groups, specific problems raised by practice and possible solutions, good practices. ● Be able to communicate and develop the oral, written communication needed with users, partners (publishers, libraries, book distributors, database providers, IT developers, other public collections, cultural and educational institutions) and maintainers. ● Ability to apply learned problem-solving techniques effectively and adequately in the field of library conflict management to communicate with users and other partners. ● Effectively process, systematize and apply new knowledge in your area of expertise. Able to review and manage traditional and electronic literature in each discipline, specialist databases, and use library databases and tools to operate them with confidence.
Qualification URL	Each of the awarding bodies' websites

Title	Librarian and Information Scientist

Title:	**Librarianship in Europe – mapping professional needs**
Authors:	Tiana Zignani / PL2030, Flavia Massara / ICCU, Aneta Doncheva, Spaska Tarandova / GLBF, DAISSy Research Group / HoU, Baiba Holma, Daina Pakalna / KISC

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Awarding body or competent authority	- Pécsi Tudományegyetem - University of Pécs - Eötvös Loránd Tudományegyetem - Eötvös Loránd University - Szegedi Tudományegyetem - University of Szeged - Eötvös József Főiskola - József Eötvös College - Debreceni Egyetem - University of Debrecen - Eszterházy Károly Egyetem - Károly Eszterházy University
EQF level	7
Formal or non-formal?	Formal
Description	The aim of the training is to train librarians with the knowledge they have acquired in the basic institutions of the information and knowledge society (libraries, economic, business, administrative, public administration and information service institutions and centres, as well as in other fields requiring IT librarian qualifications). utilizing the full range of advanced information technology tools, they are able to perform tasks related to the production, organization, processing, information, archiving of information content and to design and manage related services, to convey knowledge, information and culture. They are also able to play an active role in knowledge dissemination and research support. They are prepared to continue their doctoral studies. Knowledge - He / she knows and understands and interprets the place, interfaces and role of library and information science in relation to other disciplines in accordance with the requirements of confident practicality. - Knows and understands the national, European and international strategies, policies, legal norms that determine current issues in library and information science and determines the role of libraries in education, training, research and development. - Has an in-depth knowledge of information and knowledge society, service development and organizational knowledge management, research and business information support, knowledge dissemination, knowledge production, traditional and modern forms of knowledge representation, library management, use of IT systems and applications, and content delivery territory. - He / she knows the technology of information management and applies IT, infocommunication tools, methods, techniques. - He / she knows and understands computer information systems, their operation, as well as basic and guidelines related to digitization, creation, service and preservation of electronic documents in a library environment. - Has advanced methodological content related to modern quality management, knowledge management and project management, as well as service delivery and planning. - Knows and understands the basic conceptual system, institutional system, context and tendencies of peer studies closely related to the library field, and due to the role of the library in the teaching, research and development environment

	- They are aware of the evaluation and selection of domestic and foreign information sources, the information needs and habits of each discipline. - Knows and understands the domestic, European and global problems and trends in the information and knowledge society, the information economy, which determine the basic tendencies of library science thinking. - He / she knows the economics of information, the modern basics of financial and legal regulation and standardization. - She possesses the needs research and quality management methods and techniques that enable to assess and get to know the habits, needs and expectations of actual and potential library and information users. - He / she has the theoretical and methodological knowledge and tools of library quality management and organizational self-evaluation, which can be used by libraries and information organizations to fulfil their present and future tasks. - He knows the national and international professional organizations of the library field, the framework of the sector's management and legal regulation. - Knows the authoritative domestic and international literature sources and other professional organs of library science. - It knows the basic sources of information needed to find acceptable and feasible applications for your organization, and the methodology for managing applications and projects. - Has an in-depth knowledge of user training methodology and technical and methodological requirements for the production of library and information science e-learning materials.
Competences acquired	- He / she is able to analyse independently, evaluate the results of using information, conduct research and synthesize different conclusions in solving problems of information management. - It is capable of processing existing information in new ways, providing traditional and web content services, archiving text and multimedia information, designing, creating, maintaining and publishing databases and adapting foreign professional solutions by producing new information. - It is capable of applying information analysis and planning techniques, effective communication, and high level of literary information needs in the economic, political, administrative, cultural, scientific and other fields, using traditional sources of information and modern information technologies. - It is capable of organizing, managing, operating, quality assurance and continuous improvement of marketable library services, innovation, and application of appropriate practices and management techniques in its relations with maintainers, market players and users. - He / she is able to carry out high-quality, independent collections, processing, systematization and information work in various types of libraries, professional information and documentation institutions, and in the business sector in the field of Hungarian and foreign languages. - It is able to provide bibliometric and science metric services and support scientific research. - He / she is able to efficiently co-operate and manage library workflows and collaborates effectively with internal and external partners

	● Able to find acceptable and feasible applications for your institution, and manage project and project work. ● It is able to assist the provision of information to education, training, research and database inquiries. ● Able to conduct user-training courses and prepare electronic course materials. ● He / she is able to interpret library science specialized language in the foreign language he / she knows, to search information in foreign language databases, to carry out scientific information using foreign language sources and to communicate with foreign users.
Qualification URL	Each of the awarding bodies' websites

Title	Teacher of Library and Information Science
Awarding body or competent authority	● Pécsi Tudományegyetem - University of Pécs ● Eötvös Loránd Tudományegyetem - Eötvös Loránd University ● Szegedi Tudományegyetem - University of Szeged ● Eötvös József Főiskola - József Eötvös College ● Debreceni Egyetem - University of Debrecen ● Eszterházy Károly Egyetem - Károly Eszterházy University
EQF level	7
Formal or non-formal?	Formal
Description	The aim of the training is to train teachers with a broad range of scientific, pedagogical, psychological and general education, theoretical and practical knowledge, skills and abilities. They are prepared for the public education tasks defined in the National Core Curriculum, on the basis of development areas and educational goals, and to convey the values of educator-educator work, public education content, knowledge building, development and validation of key competences. They are also prepared to provide, within the stages defined by the Act on Public Education, in the literary areas of the curriculum based on and approved by the National Core Curriculum in institutions of the public education system, to do work and to participate in educational development programs in a creative way based on their acquired knowledge and practice. They are able to apply their professional skills in pedagogy, to get to know students, to develop their personality, to manage their classroom and out-of-school work differently, to apply effective pedagogical methods and procedures; have the basic skills required to perform career guidance, child and youth protection, social and educational advisory tasks, and to cooperate with cultural mediation institutions. They are mature, autonomous, creative individuals with a common set of values, capable of communicating and developing themselves, embracing common human, European and national values. With the master's degree, they are prepared to continue their studies in doctoral education.
Competences acquired	N/A
Qualification URL	Each of the awarding bodies' websites

Greece

Title	Bachelor in Library Science and Information Systems
Awarding body or competent authority	Technological Educational Institute of Athens
EQF level	6
Formal or non-formal?	Formal
Description	Upon completion of studies, the Department's graduate, Library and Information Technology Education, has the knowledge and practical experience to successfully operate either independently or in collaboration with other scientists and technologists in the following fields: ● study, research and application of modern technology in the creation, organization, operation and administration of libraries, archives and all kinds of informative organizations; ● creation, organization, operation and management of digital libraries, repositories, electronic files etc.; ● research on information science; ● training for the use of any kind of information units and related IT activities; ● provide information services and create products / information tools.
Competences acquired	● planning, organization, management and operation of any information organization in a physical or digital environment; ● the definition of information science and librarianship objectives; ● identify, organize and make information publicly available; ● provide information services; ● design, organize and implement cultural events within the context of the information organization ● educate the users of the information organisation; ● develop collaborations with other information organizations (physical and electronic) at local, national and international level; ● design information systems; ● developing information tools / products
Qualification URL	http://proson.eoppep.gr/en/Qualifications/Details/933

Title	Bachelor's Degree in Cultural Technology and Communication
Awarding body or competent authority	University of the Aegean
EQF level	6
Formal or non-formal?	Formal
Description	● Know the basic principles for programming computer software and designing IT systems. ● Know, assess, and select suitable techniques and technologies for IT and communications in order to promote the cultural legacy.

- Know the basic principles of the theory of culture and communication and combines them with the purpose of disseminating cultural information.
- Know the basic principles for the preservation and management of the material and immaterial cultural inheritance.
- Know and design the creative production of quality cultural content, using IT and multimedia technologies.
- Know technologies and techniques for the registration and processing of image and audio using digital means.
- Know how to organize and make use of data through an audio-visual or multimedia project.
- Understand the concept of the cultural information and the basic principles for organizing and managing it.
- Analyse the requirements for the design and development of IT systems.
- Understand the capabilities for connecting new technologies and culture within the context of the scientific field of cultural informatics.
- Understand the methods by which humans interact with digital cultural content.
- Understand the capacities and the prospects of the interdisciplinary composition and collaboration.
- Analyse the changes in cultural values and behaviours and adjust the presentation, promotion, and communication of the cultural information to them.
- Apply the theories and learning models for the design, implementation, and evaluation of learning scenarios and digital applications of educational technology.
- Apply methods and techniques for the production, direction, and processing of image and audio in audio-visual works.
- Make use of the theories of communication and digital media for the implementation of audio-visual works.
- Make use of the theories of museology and museum pedagogy for the implementation of applications for museums and relevant cultural organisations.
- Design and develop interactive multimedia application, databases, internet sites, games, 3D graphics, intelligent systems.
- Are capable of designing and implementing digital cultural products for organisations of various categories.
- Collaborate at every stage leading to the selection, analysis, processing, production, and presentation of digital cultural content.
- Develop techniques and methods, mainly in the form of multimedia, which facilitate access to cultural information

Competences acquired	N/A
Qualification URL	http://proson.eoppep.gr/en/Qualifications/Details/1166

Title	Bachelor's Degree in Library Science and Information Systems
Awarding body or	Alexander Technological Educational Institute of Thessaloniki

|	
Title:	**Librarianship in Europe – mapping professional needs**
Authors:	Tiana Zignani / PL2030, Flavia Massara / ICCU, Aneta Doncheva, Spaska Tarandova / GLBF, DAISSy Research Group / HoU, Baiba Holma, Daina Pakalna / KISC
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competent authority	
EQF level	6
Formal or non-formal?	Formal
Description	Learning outcomes: The graduates of the Department are expected to have understood the following: ● The basic principles, values, and concept of the profession of the librarian - information scientist. ● The method by which libraries and librarians contribute to the promotion of democratic principles, freedom of thought, and life-long learning. ● The basic principles for the organisation and operation of libraries of various types (academic, folk, school, specialized, etc.) of documentation centres, of archives and cultural organisations. ● The basic principles for the organization and operation of digital libraries, foundation depositories, archives, digital collections, thematic gates in the internet, and all kinds of digital information. ● The basic concepts concerning the lifecycle of information. ● The concepts and the methods for acquiring and making available the sources of information. ● The basic principles for organising recorded knowledge and information. ● The characteristics and the potential for using new technology in the field of libraries and relevant organisations. ● The techniques and methods for evaluating products and services based on technology. ● The basic concepts of information needs and of information behaviour. ● The basic concepts and principles of IT services. ● The procedure and the basic research methods. ● The major learning theories. ● The basic principles and methods for the administration and management of societies and organisations.
Competences acquired	With the purpose of being capable of: ● Evaluating, selecting, and organizing sources of information of various types and forms. ● Effectively using modern tools and technologies for the organisation, recovery, use, preservation, and maintenance of documents and digital collections. ● Designing and developing systems and information services that cover the needs for education, updating, and entertainment. ● Leading and training users in the procedure of tracking, evaluating, and properly using information. ● Promoting the values of reading, free access to knowledge, and freedom of thought. ● Conducting research and contributing to the production of new knowledge. ● Collaborating effectively with scientists of other specialists. ● Thinking critically and understand, analyse and resolve composite problems. ● Putting their knowledge into practice.

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Qualification URL	● Adjusting to new environments and requirements, and continuously learn.
	http://proson.eoppep.gr/en/Qualifications/Details/1080

Title	Degree of Management and Conservation of Ecclesiastical Cultural Heritage Objects programme
Awarding body or competent authority	University of Ecclesiastical Academy of Thessaloniki
EQF level	6
Formal or non-formal?	Formal
Description	Knowledge: ● Understand and promote Orthodox Ecclesiastical culture. ● Demonstrate good laboratory behaviour and practice. ● Be sensitive towards issues of the moral and ethical code concerning the preservation an ecclesiastical cultural inheritance. ● Know the characteristics, the properties, and the behaviours of different preservation materials. ● Organise and apply preservation procedures and practices, such as those regarding management, recognition, research, assessment, diagnosis, documentation, recording, restoration, and preservation. ● Recognise and discern the specific characteristics of relics and materials, as well as the methods and procedures concerning the preservation thereof. ● Know IT systems and item digitization systems.
Competences acquired	Skills ● Treat relics and cultural items of the Church Tradition with a scientific and theological manner. ● Handle traditional manufacture materials. ● Record in a scientific manner the relics and monuments. ● Operate laboratory instruments used for detecting materials, such as spectrometers, microscopes, X-ray machines. ● Draft studies for the management of museums. ● Digitise and document church or museum collections. ● Identify relics and classify them within their historical, cultural, and sociological environment. ● Preserve subjects of culture, icons, metallic items, woodcuts, textiles, ceramics, paper, marble items, and glass items. Competences ● Undertake the complete study and preservation of portable icons and paintings. ● Undertake the complete study and preservation of mosaics and marbles. ● Undertake the complete study and preservation of woodcuts, metallic and cloth items. ● Undertake the complete study and preservation of books, codes, and manuscripts. ● Undertake the complete study and preservation of glass and ceramic items.

	● Set up a preservation laboratory. ● Communicate and collaborate with the persons responsible of the Temples and of the Museums, suggesting solutions for the management of the items of cultural inheritance. ● Draft complete studies for the recording and management of ecclesiastical relics. ● Set up an Ecclesiastical Museum. ● Design and suggest solutions that are compatible with the ethos, the tradition, and the culture for the safekeeping, the promotion, and the preventive preservation of the items of worship and of the relics of the Orthodox Church.
Qualification URL	http://proson.eoppep.gr/en/Qualifications/Details/1550

Title	Vocational training diploma - specialty: maintenance technician for books and archives
Awarding body or competent authority	EOPPEP
EQF level	5
Formal or non-formal?	Formal
Description	Knowledge: ● Know the special principles and concepts, the content and scientific vocabulary of their specialty ● Analyse information that enables them to understand their work field ● Possess at an adequate level the methods and procedures of the new technologies ● Know the safety and hygiene requirements and the relevant actions for their speciality
Competences acquired	Skills ● Hold a wide range of cognitive and practical skills of their specialty ● Apply with fluency a range of specialised techniques in their field of expertise ● Solve in a creative manner specific problems that arise in their working environment ● Have communication skills at the level of theoretical and technical information in subjects of their expertise ● Handle with expertise the required technological equipment of their specialty Competences ● Operate with autonomy in their field of work and have the ability to supervise others, depending on their specialty and in the context of their duties ● Engage effectively in group work ● Act within the scope of their specialty according to the principles of the professional ethics

	● Develop initiatives in specific fields of their specialty
Qualification URL	http://proson.eoppep.gr/en/Qualifications/Details/1307

Title	Doctorate in "Cultural Informatics and Communication"
Awarding body or competent authority	University of the Aegean
EQF level	8
Formal or non-formal?	Formal
Description	The doctors of the department have increased specialized knowledge on the field of Cultural Informatics and Communication, which contains sufficient data from the latest scientific developments and comprises the basis for original thinking, research and professional activity
Competences acquired	● show critical understanding of the principles, theories, methodologies and practices for a specific field of Cultural Informatics and Communication, along with its interconnection with other cognitive fields; ● have increased critical awareness of the evolutionary dynamics and of the latest issues of the cognitive domain of Cultural Informatics and Communication; ● easily apply the theories and methodologies of Cultural Informatics and Communication with a critical and creative way in their own research, study, and work. ● apply with originality any specialized knowledge obtained through their doctorate to research, to analysis and to the development of innovative solutions for complex, interdisciplinary or pioneering issues; ● are capable of assessing, interpreting and promoting modern scientific research and studies related to the field of Cultural Informatics and Communication; ● provide deductively and scientifically documented solutions to complex and new issues of the field of Cultural Informatics and Communication and formulate valid judgments after considering the various relevant social, economic, cultural, and moral aspects; ● document their positions using specialized information and arguments, related to the field of Cultural Informatics and Communication, towards a specialized or non-specialized audience with clarity, adequacy and accuracy; ● have developed with autonomy their knowledge and competencies at a high level; ● apply with professionalism the specialised knowledge and competencies acquired from their doctorate and can efficiently deal with new, interdisciplinary or unforeseen issues; ● solve problems and take strategic decisions starting with inductive reasoning, which has been acquired during the in-depth studying of their doctorate's subject;

	● contribute significantly to the progress of knowledge and practices in the professional and business field, and they have operational skill in managing crises; ● take autonomous responsibility for education/training/teaching and managing a team and they assess its performance.
Qualification URL	http://proson.eoppep.gr/en/Qualifications/Details/1211

Title	Master's degree in "Cultural Informatics and Communication"
Awarding body or competent authority	University of the Aegean
EQF level	7
Formal or non-formal?	Formal
Description	The graduates of the department: ● Know how to organize cultural information aiming for effective communication with the use of new technologies. ● Know how to manage the available cultural resources of a region, aiming for their showcasing and promotion. ● Know the peculiarities and modern requirements of cultural organisations that fall into cultural industries. ● Understand the role of the ICTs for the showcasing and promotion of the cultural assets. ● Understand the contribution of the ICTs for the production of cultural services and goods. ● Understand the role of the cultural assets for the integrated development of communities at a local, regional, national, and international level. ● They may design and implement innovative, creative, digital applications. ● May select and use informatics technologies depending on the needs, the objectives, and the respective audience. ● May participate in interdisciplinary groups for projects of digital culture.
Competences acquired	N/A
Qualification URL	http://proson.eoppep.gr/en/Qualifications/Details/1187

Latvia

Title	Bachelor of Social Sciences in Library Science and Information
Awarding body or competent authority	University of Latvia
EQF level	6
Formal or non-formal?	Formal
Description	The aim of the programme is to provide students with knowledge and skills in information management in different institutions (libraries, information centres,

	archives, museums and other public and private institutions and enterprises) involving the following thematic groups of information specialists competence: management of information resources, management of information institutions, management of information services and management of information technologies. Programme mastering gives the graduates knowledge and understanding of: ● information management elements (objects) and processes, theoretic approach and methodology in their research (about formation of informational needs, on information sources, their functions and flow in society and institutions; on institutions that provide organised information flow management in society; information services and their compliance with user needs); ● approach to creation and maintenance of physical and digital collections; ● approach to processing of information sources (organisation, management), providing its retrieval; ● strategies and methods of information search and retrieval; ● approach to and means of information dissemination of information sources; ● the application of information and communication technologies.
Competences acquired	General ● skills to get and analyse information from different sources; ● skills to present an issue or theme in the form understandable to other people; ● skills to communicate with different social groups; ● skills to work in a team; ● skills to think critically and to analyse an issue systematically; ● skills to solve problems and to make decisions; ● skills to learn independently and master new knowledge; ● skills to think creatively and offer innovative decisions. Specific ● skills to create and maintain physical and digital collection; ● skills to process (organise, manage) information sources and provide its retrieval; ● skills to search information sources and retrieve information; ● skills to disseminate information via information sources (e.g., skills to work out information systems and services and to offer them, skills to teach other people computer literacy); ● skills to use information and communication technologies.
Qualification URL	https://www.latvijaskvalifikacijas.lv/qualification/socialo-zinatnu-bakalaura-grads-bibliotekzinatne-un-informacija-lu/

Title	Certificate of professional qualification: Librarian
Awarding body or competent authority	Latvijas Kultūras akadēmijas aģentūra - Agency of the Latvian Academy of Culture
EQF level	4
Formal or non-formal?	Formal

Description	Learning outcomes are formulated in accordance with the relevant occupational standard: Occupational standards register
Competences acquired	N/A
Qualification URL	ttps://www.latvijaskvalifikacijas.lv/qualification/profesionalas-kvalifikacijas-aplieciba-bibliotekars/

Title	Diploma of first level professional higher education with professional qualification: Library Information Scientist
Awarding body or competent authority	Latvijas Kultūras akadēmijas aģentūra - Agency of the Latvian Academy of Culture
EQF level	5
Formal or non-formal?	Formal
Description	Learning outcomes are formulated in accordance with the relevant occupational standard and the strategic objectives of educational programmes outlined in the state standard of first level professional higher education. For more information, see the Cabinet of Ministers Regulations No. 141 "Regulations on the state standard of first level professional higher education" (adopted on 20.03.2001): Read standard. Occupational standards: Occupational standards register
Competences acquired	- To work individually and in a team, ensure protection of information users' rights. - To build a professional working environment through participation in professional organizations. - To acquire information on industry trends in the country and study the professional experience of foreign colleagues. - To promote information both in writing and orally. - To organize cooperation with mass media and communication with other institutions and professionals. - To prepare and implement planning and organizational documents. - To engage in creative projects. - To communicate fluently in the official language. - To communicate in at least two foreign languages. - To use professional terminology in the official language and two foreign languages. - To possess knowledge of library information systems and information and communication technologies (reader/customer level). - To be able to search, retrieve, analyse, evaluate information and sources, facilitate readers' ability to use information. - To ensure cooperation with professional and management bodies (state, local governments, non-governmental, private), further education and self-education (participation in seminars, projects, courses). - To understand thoroughly and implement the national cultural policy. - To possess knowledge of the professional environment and library infrastructure; to understand interpersonal psychology principles.

	● To provide processing of traditional and electronic documents, development of resources, and retrieval of information, document storage and distribution. ● To understand the principles of structuring of books and other printed sources of information into stock, structuring of data into databases, archiving of internet resources. ● To have basic understanding of management of digital objects, development of multimedia digital collections. ● To be able to visualize and present information. ● To apply relevant industry laws, regulations, standards and other regulatory documents. ● To provide printing and electronic services. ● To implement innovative services. ● To draw up operational and strategic planning documents for libraries and information institutions. ● To draw up and implement projects.
Qualification URL	https://www.latvijaskvalifikacijas.lv/qualification/pirma-limena-profesionalas-augstakas-izglitibas-diploms-ar-profesionalo-kvalifikaciju-biblioteku-informacijas-specialists/

Title	Master of Social Sciences in Library Science and Information
Awarding body or competent authority	University of Latvia
EQF level	7
Formal or non-formal?	Formal
Description	The aims of the academic master`s study programme „Library Science and Information" are:   ● to prepare highly qualified specialists with all-round competence in management of information resources and services for work in libraries and other information institutions;   ● to facilitate students` interest and involvement in research, which would create the prerequisites for further studies at doctoral level and continuity of academic staff.
Competences acquired	● in-depth knowledge of library science which provides the basis for critical thinking and creativity; ● ability to apply knowledge in making a career as a highly qualified specialist, expert or leader in a library or other information institutions; ● skills to hold an argumented discussion on complicated aspects of communication science and professional topics with specialists and non-specialists alike; ● competence to organize, manage and codify information.
Qualification URL	https://www.latvijaskvalifikacijas.lv/qualification/socialo-zinatnu-magistra-grads-bibliotekzinatne-un-informacija-lu/

Title	Bachelor's Degree of Social Sciences in Information Science (RTA)
Awarding body or competent authority	Rezekne Higher Education Institution
EQF level	6
Formal or non-formal?	Formal
Description	There have been acquired the basics of information, communication, history, cultural studies. There have been developed interdisciplinary historical information (oral history sources, archives, museums, periodicals, historical monuments, cultural objects, groups of society) research skills and skills of processing and presenting the obtained information
Competences acquired	N/A
Qualification URL	https://www.latvijaskvalifikacijas.lv/qualification/socialo-zinatnu-bakalaura-grads-informacijas-zinatne-rta/

Title	Professional Master Degree in Records and Archives Management, Records System Manager
Awarding body or competent authority	University of Latvia
EQF level	7
Formal or non-formal?	Formal
Description	- to ensure the learning of practical skills related to records system management in pursuing of the fifth-level professional qualification "Records System Manager"; - to ensure competence in records and archives management in accordance with Latvian laws and regulations as well as international practice; - to ensure and develop a foundation of theoretical knowledge in the fields of information studies (documentology, archival studies) and management in relation to how archive and records systems and relevant information processes are evaluated and examined. - In pursuit of these goals the programme has the following tasks: - to ensure studies in the area of records and archives management (lectures, practical work, research by students etc.); - to organize practices that are in line with the relevant level of professional qualifications at the records management departments of institutions and companies, institutional and national archives as well as certified private archives; - to involve high-level instructors and professionals in teaching courses; - to supplement the availability of theoretical literature that is needed for courses that are taught in a systematic way, not least in terms of writing scholarly articles and preparing educational and methodical resources;

- to conduct fundamental and applied research in the area of records management, archival studies, communication studies and information studies;
- to organize ongoing education for the staff of state archive and institutions in accordance with co-operation agreements that are concluded in this regard;
- to be involved in the certification of archival specialists as indicated in the Law on Archives;
- to work with employers, foreign partners and other organisations and individuals who are of interest.
- As a result of the programme, graduates will have:
- Knowledge and understanding about:
- theoretical approaches in records and archive management and use of these approaches in identifying methodologies and strategies;
- functions of information in society (its transmission, collection, processing, storage and distribution), focusing on better ways of organising information in accordance with the public needs and the development of relevant technologies;
- research processes and their results in terms of the practice of records and archives management;
- national and international norms and standards which apply to records and archives management;
- ways of identifying and implementing strategies related to the accumulation, evaluation, storage and accessibility of records;
- the latest information and communication technologies and how they can be used in records and archives management;
- the effects of related sectors on the development of records and archives management.
- General competences of managers in the area of records and archives:
- the ability to offer well-argued views about systemic aspects of records management;
- the ability to take decisions, co-ordinate work and manage co-operation; the ability to take responsibility for the results of group work;
- the ability to put theoretical knowledge to practical use;
- the ability to do work and research under complicated conditions while also implementing new approaches in these areas; the ability to analyse problems and success in the sector as well as to monitor the latest trends therein).
- Specific competences:
- the ability to understand the functions and duties of an institution as well as the mechanisms of information flow that are needed for the circulation of records;
- the ability to manage and optimise the information services of institutions;
- the ability to draft requirements for records management projects and specifications;
- the ability to organise, manage and systematise information;

	● the ability to assess records and information as well as to audit information systems; ● the ability to evaluate and select the most appropriate storage conditions for different information carriers
Competences acquired	● To understand the principles of legal forms of activity (public administration, corporation, association etc.) and management. ● To apply special methods (functions, risk analysis, etc.) of management sciences, as well as document and archive management. ● To apply theoretical knowledge in practice. ● To develop regulations and document management procedures, follow implementation thereof and ensure compliance therewith. ● To organize, manage and systematize documents during development, movement, storage, use and disposal thereof. ● To audit document and information systems. ● To develop requirements for document (including electronic) system projects, specifications. ● To evaluate documents and information. ● To assess and select the most suitable document system storage conditions according to information (data) carrier and environment. ● To implement advanced solutions and methods of document management. ● To follow the latest trends and events in document and archive management. ● To utilize the latest methods of work and information technology. ● To use industry-specific information technologies and equipment (e-signatures, databases, imaging technologies, etc.). ● To comply with applicable laws and regulations, business etiquette and ethics. ● To work in a team/group, delegate and coordinate duties, motivate employees. ● To work in psychologically challenging situations and get involved in problem-solving. ● To acquire new knowledge independently. ● To plan and organize one's work. ● To be able to substantiate one's opinion. ● To draw up and deliver presentations. ● To know the official language at the highest level. ● To be able to communicate in two foreign languages. ● To use professional terminology in the official language and one foreign language. ● To comply with occupational safety, fire safety and hygiene requirements. ● To comply with environmental protection regulations. ● To meet the requirements of employment relationship.
Qualification URL	https://www.latvijaskvalifikacijas.lv/qualification/socialo-zinatnu-magistra-grads-bibliotekzinatne-un-informacija-lu/

Title	Professional Master's Degree in Archive Studies, Archivist (RTA)

Awarding body or competent authority	Rezekne Higher Education Institution
EQF level	7
Formal or non-formal?	Formal
Description	There has been acquired deepened theoretical knowledge in science of archives, archaeography, document and archive management that is demonstrated by critically assessing and correlation revealing awareness of the unity of theory and practice; The ability to apply the gained knowledge in practice, demonstrating professional competence of an archivist; there has been developed research competence in the chosen research field through research practice, presenting the research results in the conference and elaborating Master's thesis.
Competences acquired	- To apply theoretical knowledge, as well as special methods of archive science and document and archive management in practice. - To develop archive management strategy, plan and organize archive (archive department's) management. - To develop and implement archive and document management procedures. - To develop and harmonise documents governing archive and document management. - To carry out methodological work in the field of document and archive management, provide methodological assistance and advice on issues related to document and archive management. - To carry out audits and inspections of documents and management of documents and archives in companies and accredited private archives. - To evaluate classification schemes of company files' nomenclature, sample nomenclature or documents, destruction protocols of documents. - To evaluate documents and determine archival value thereof taking into account the document's evidential value, administrative, fiscal, primary and secondary value, as well as informative value. - To organise document acceptance for storage in the archive. - To carry out document stocking, develop (or use) document classification and systematization schemes. - To develop a multi-archival description. - To develop illustrative lists of standard document storage periods and file nomenclature. - To develop archive information search tools, archive document tracking and scientific information systems. - To ensure optimal storage conditions of archive documents, perform systemic monitoring of document storage conditions and implement measures for improvement thereof, as well as to carry out preventive treatment of documents. - To provide inventory of archive documents, verify existence and physical condition thereof and, if necessary, carry out special measures for document search, prevention of further damage.

Title: **Librarianship in Europe – mapping professional needs**
Authors: Tiana Zignani / PL2030, Flavia Massara / ICCU, Aneta Doncheva, Spaska Tarandova / GLBF, DAISSy Research Group / HoU, Baiba Holma, Daina Pakalna / KISC

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- To take all necessary measures for the preventive protection and preservation of documents and, if necessary, provide information transfer to other data carriers.
- To develop and update the reserve copy and usable copy stock.
- To prepare archive references, certified copies of archive documents, extracts and duplicates.
- To provide services and give advice to the visitors of the archive reading room.
- To perform activities to promote archive documents and raise awareness thereof (preparation of exhibitions, publications, booklets and newsletters of archive documents).
- To organize seminars, conferences, educational activities on matters regarding document and archive management, provide professional development of document and archive management experts.
- To utilize latest working methods and information technologies to carry out one's professional activities.
- To maintain, develop and update document information systems.
- To study the latest trends and events in document and archive management, to follow current events in document and archive management.
- When working with documents drawn up before the regaining of the independence of the Republic of Latvia, to know the original languages of the archive documents.
- When working with documents from the 19th century and earlier, to have knowledge of paleography.
- To conduct research on topical issues of archival science, providing development of document and archive management in Latvia.
- To develop and manage projects in the field of document and archive management.
- To comply with the laws and regulations in the field of archive and document management and the basic principles of professional and general ethics.
- To independently acquire new knowledge.
- To plan and organize one's work.
- To be able to substantiate one's opinion.
- To know the official language.
- To know two foreign languages at the communication level.
- To use professional terminology in the official language and two foreign languages.
- To work in a team, work in psychologically challenging situations and get involved in problem-solving.
- To comply with the requirements of occupational safety, electric safety and fire safety regulations and ensure execution thereof.
- To comply with environmental regulations.
- To meet the requirements of employment relationship.

Qualification URL	https://www.latvijaskvalifikacijas.lv/qualification/profesionala-magistra-grads-arhivnieciba-arhivists-ra/

Poland

Title	Dyplom ukończenia studiów I stopnia na kierunku Architektura informacji
Awarding body or competent authority	Uniwersytet Mikołaja Kopernika w Toruniu; Wydział Nauk Historycznych - Nicolaus Copernicus University in Toruń; Faculty of Historical Sciences
EQF	6
Formal or non-formal	Formal
Description	The person has elementary knowledge about the nature and significance of the humanities and their relations to the social and exact sciences and knows what the place of information in the information society is. He has basic knowledge about the connection of electronic media with bibliology and information science and art history; a basic knowledge of the history of the development of tools, forms and institutions of communication and knows the directions of their development in the modern world. He has basic knowledge about the psychological, social and cultural functioning of man as an individual co-creating social structures. He distinguishes elementary concepts, theoretical approaches and research paradigms in the humanities and can use them. He formulates, understands and analyses simple research problems using appropriate methods, techniques and research tools and knows how to apply them. Is able to properly prepare and present his own editorial work using modern technologies. He critically evaluates sources of information, categorizes and analyses the media. He can work in a group, plan and organize individual and teamwork. The graduate understands the need for continuous education, independently plans and implements his own learning throughout life. He perceives and solves dilemmas related to work, conducts ethics, analyses own activities, is aware of responsibility for preservation and promotion of cultural heritage, especially its material carriers. Studies allow you to prepare for the professions: information architect, internet analyst, web designer, database designer, webmaster, editor and administrator of web portals, editor and publisher of digital content, info broker, researcher, SEO positioner, content manager for websites and resources information, graphic designer and multimedia designer, social media specialist, digital archivist, information service functionality tester, software tester.
Website	https://rejestr.kwalifikacje.gov.pl/frontend/index.php?r=kwalifikacja/view&id=2310

Title	Dyplom ukończenia studiów I stopnia na kierunku Archiwistyka i zarządzanie dokumentacja
Awarding body or competent authority	Uniwersytet Mikołaja Kopernika w Toruniu; Wydział Nauk Historycznych - Nicolaus Copernicus University in Toruń; Faculty of Historical Sciences
EQF	6
Formal or non-	Formal

Title:	**Librarianship in Europe – mapping professional needs**
Authors:	Tiana Zignani / PL2030, Flavia Massara / ICCU, Aneta Doncheva, Spaska Tarandova / GLBF, DAISSy Research Group / HoU, Baiba Holma, Daina Pakalna / KISC

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formal	
Description	The graduate has basic knowledge in the humanities and social sciences, knows the place of Archival Science and Documentation Management in the system of sciences, knows the theory and methodology of this field. He/she knows professional terminology in this field of study and can communicate with the use of it. He/she uses structured knowledge about the collection, storage, development and sharing of archival resources, types and forms of documentation, and their creation. The graduate formulates and solves untypical problems and performs tasks in conditions that are not fully predictable. He/she is able to plan, organize and control the production of documentation and knows the basics of managing archives and related institutions. The graduate knows and understands legal norms regulating the operation of archives and dealing with documentation in institutions. He/she is able to search, process and use information for Archival Science and Documentation Management, using various sources and methods, including info brokers. He/she is able to work in a group, to plan and organize individual and teamwork. The graduate understands the need for continuous education, therefor independently plans and implements his/hers own learning. The graduate sees and solves work-related dilemmas, is ethical, analyses own activities, is aware of responsibility for preserving and promoting archival heritage. The studies prepare graduates for work in: historical archives (including state, military, university, church and in the Institute of National Remembrance); company archives or file depots operating in every office, institution, enterprise; libraries and museums, especially in the sections of manuscripts and special collections; companies, offices and law offices as a manager of the documentation management process and an office work organizer; in social archives, the centres of documentation and information; private enterprises providing back-office services; we prepare graduates to set up and run their own business in the field of registry and archival services. Archival Science and Documentation Management is conducted in the form of full-time studies. There are there specialties to choose from: Archival Science, Documentation Management and Source Knowledge. Toruń"s archivist education centre is the best and oldest in Poland. We have been teaching since 1951. We work with various external institutions and companies to ensure that our graduates gain practical skills. While they work in groups, students are learning to use modern technologies.
Website	https://rejestr.kwalifikacje.gov.pl/frontend/index.php?r=kwalifikacja/view&id=2403

Title	Dyplom ukończenia studiów II stopnia na kierunku Archiwistyka i zarządzanie dokumentacją - Graduation diploma in the field of Archivistics and Document Management
Awarding body or competent authority	Uniwersytet Mikołaja Kopernika w Toruniu; Wydział Nauk Historycznych - Nicolaus Copernicus University in Toruń; Faculty of Historical Sciences
EQF	7
Formal or non-	Formal

formal	
Description	The graduate has a thorough knowledge of the place and methodological specifics of Archival Science and Documentation Management, which he develops and creatively uses at work. He knows the terminology, theory and methodology of this field, which he/she can use to communicate on specialist subjects with various recipients. He/she is able to search, analyse, evaluate, select and apply information using various sources and methods, and test hypotheses related to simple research problems. He/she is able to actively search for information on the Internet and in the resources of archival institutions and to evaluate them; he/she knows how to independently acquire knowledge and broaden their skills, as well as undertake autonomous actions aimed at developing skills and managing their own professional career. He/she is able to integrate the acquired knowledge to his/hers toolkit and apply it in untypical professional situations. He/she has in-depth knowledge of planning, organizing, controlling and motivating in the field of documentation production and professional management of archives and related institutions. He/she knows, uses and can interpret and apply Polish and international legal acts that are the basis of archives" activities. He/she can organize the learning process of other people, interact and work in groups and take a leading role in them. After graduation, it is possible to work in: historical archives (including state, military, university, church and other); in company archives or file depots operating in every office, institution and enterprise; in libraries and museums, especially in the sections of manuscripts and special collections; in companies and law offices as a manager of the documentation management process and an office work organizer; in social archives, documentary and information centres as well as private enterprises providing back-office services; students are also prepared to start and run their own business in the field of registry and archival services. Archival Science and Documentation Management is conducted in the form of full-time studies. There are three specialties to choose from: Archival Science, Documentation Management and Source Knowledge. Toruń"s archivist education centre is the best and oldest in Poland. We have been teaching since 1951. We work with various external institutions and companies to ensure that our graduates gain practical skills.
Website	https://rejestr.kwalifikacje.gov.pl/frontend/index.php?r=kwalifikacja/view&id=2404

Portugal

Title	Information, Documentation, Communication Technician
Awarding body or competent authority	Agência Nacional para a Qualificação e o Ensino Profissional, I.P. - National Agency for Qualification and Vocational Education, I.P.
EQF	4
Formal or non-formal	Formal
Description of qualification	Plan and organize information, documentation, and archiving services, as well as carry out the physical handling of documents and information, and provide support to users / customers, to ensure a quality service and their full satisfaction.

Qualification URL	http://www.catalogo.anqep.gov.pt/Qualificacoes/Referenciais/1729

Title	Library, archive, documentation technician
Awarding body or competent authority	Agência Nacional para a Qualificação e o Ensino Profissional, I.P. - National Agency for Qualification and Vocational Education, I.P.
EQF	4
Formal or non-formal	Formal
Description of qualification	N/A
Qualification URL	http://www.anqep.gov.pt/default.aspx

Slovenia

Title	Bachelor's degree in library and information science
Awarding body or competent authority	University of Ljublana, Faculty of Arts
EQF	6
Formal or non-formal	Formal
Description of qualification	LIBRARY SCIENCE: ● demonstrate familiarity with the origin and development of librarianship as a science and activity, ● carry out work in relation to purchasing, processing, organising and providing library material and information, ● communicate with users in order to provide library material and information from and on this material, INFORMATION SCIENCE: ● demonstrate familiarity with the origin and development of information science, ● demonstrate familiarity with individual areas of information science and connect them to other disciplines, ● demonstrate understanding of the basic principles of organising knowledge, ● demonstrate knowledge of the information cycle, ● use information technology to manage information, BOOK PRODUCTION: ● demonstrate understanding of the organisation of and the nature of work in publishing and media houses from a social and historical perspective, ● demonstrate understanding of the editorial, marketing, design and production functions of the publishing process, ● editing and formatting information for publication.

Provider URL	https://www.nok.si/en/register/diplomirani-bibliotekar-informatik-un-diplomirana-bibliotekarka-informaticarka-un

Title	Master's degree in archival and documentation science
Awarding body or competent authority	Alma Mater Europaea - European Center, Maribor
EQF	7
Formal or non-formal	Formal
Description of qualification	Students will be able to: ● demonstrate understanding of how a relevant institution or service operates, ● demonstrate knowledge and understanding of the history and development of archival and documentation sciences, ● plan and manage an effective archival and documentation service, ● demonstrate knowledge and understanding of the development of institutions and the relevant internal structures of the creators of archival material, ● demonstrate understanding of archival and documentation sciences, and their influence on the operation of modern organisations, ● demonstrate familiarity with the traditional forms of creating and dealing with documents, ● analyse documents, ● understand documents as an information medium and their influence on creating information, ● work with various user groups, ● analyse and address specific problems in archival and documentation sciences, ● apply the fundamental knowledge in archival and documentation sciences in an interdisciplinary way, ● place new information and interpretations in the context of development of professional functions, ● demonstrate familiarity with, plan and use information and communication technologies and systems, ● perform all expert tasks to obtain, store and process material and information, ● provide long-term maintenance of, and manage, transform and migrate typewritten and printed data and documents, ● demonstrate familiarity with the possibilities and solutions of an interdisciplinary approach to addressing problems related to documentation and its metadata.
Website	https://www.nok.si/en/register/magister-arhivistike-dokumentologije-magistrica-arhivistike-dokumentologije

Title	Master's degree in information science
Awarding body or competent authority	University of Ljubljana, Faculty of Arts
EQF	7
Formal or non-formal	Formal
Description of qualification	Students will be able to: ● lead institutions or their parts involved in collecting, storing and providing information (e.g., information centres, documentation departments), ● promote and enhance the profile of libraries and similar institutions involved in collecting, storing and providing information, ● critically apply new developments in the theory and practice of their professional and occupational field, ● undertake autonomous research and publish research results and take part in group research and development work, ● demonstrate creativity and originality in routine and development work and research in own field, ● show awareness of the importance and role of information in a concrete institution and in modern society in general.
Website	https://www.nok.si/en/register/magister-informacijskih-ved-magistrica-informacijskih-ved

Title	Master's degree in library science
Awarding body or competent authority	University of Ljubljana
EQF	7
Formal or non-formal	Formal
Description of qualification	Students will be able to: ● manage libraries and similar institutions involved in collecting, storing and providing information, ● promote and enhance the profile of libraries and similar institutions involved in collecting, storing and providing information, ● critically apply new developments in the theory and practice of their professional and occupational field, ● undertake autonomous research and publish research results and take part in group research and development work, ● demonstrate creativity and originality in routine and development work and research in own field, ● show awareness of the importance and role of information in a concrete institution and in modern society in general.

Website	https://www.nok.si/en/register/magister-bibliotekarstva-magistrica-bibliotekarstva

Title	Master's degree in the field of library science
Awarding body or competent authority	University of Ljubljana, Faculty of Arts
EQF	8
Formal or nonformal	Formal
Description of qualification	Graduates will have absorbed in-depth knowledge in theory and methodology of library science and similar disciplines and will be able to perform the most demanding professional, research-based, scholarly and development-related tasks in library, information and documentation sciences and book production.
Qualification URL	https://www.nok.si/en/register/magister-znanosti-magistrica-znanosti-s-podrocja-bibliotekarstva

Title	Media archivist
Awarding body or competent authority	Vocational schools, companies, inter-company training centres, adult education centres, chambers of commerce
EQF	5
Formal or non-formal	Formal
Description of qualification	Candidates will be able to: ● plan and organise own work and participate in planning the work of a team, ● ensure the quality and efficiency of own work in the working environment in accordance with regulations and standards, ● keep abreast of development of the profession, ● make rational use of energy, material and time, ● protect health and the environment, ● develop enterprise characteristics, skills and behaviour, ● communicate with co-workers, ● acquire sound, image, audio-visual and other content on various supports, ● undertake technical processing of material and establish rights to use material, ● take responsibility for the permanent and complete storage of material, ● ensure the accessibility of material and cooperate creatively in the use of material.
Website	https://www.nok.si/en/register/medijski-arhivist-medijska-arhivistka

Title	Professional Bachelor's degree in archival science

| Title: | **Librarianship in Europe – mapping professional needs** |
| Authors: | Tiana Zignani / PL2030, Flavia Massara / ICCU, Aneta Doncheva, Spaska Tarandova / GLBF, DAISSy Research Group / HoU, Baiba Holma, Daina Pakalna / KISC |

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Awarding body or competent authority	Alma Mater Europaea - European Centre Maribor
EQF	6
Formal or non-formal	Formal
Description of qualification	Candidates are capable of: (general competences) • identifying, searching, obtaining, describing, organising, storing, maintaining and providing access to stored data structures and information about and from archival and documentary material, regardless of their physical form or technological mechanisms, • understanding the operation of the institution or service concentrated on understanding the role and significance of archival and documentary functions, with the ability to analyse, synthesise and predict solutions, • determining the needs of current and potential groups of users, • sufficient knowledge of the principles of information technologies necessary for the planning, implementation, evaluation and management of current and emerging computer-based information management systems for archival and documentary material, • knowledge and understanding of the processes in archival and documenting functions, • knowledge and management of research methods and procedures, • application of professional knowledge of archival science and documentology in their work, • cooperation in research and presentation of research results in scientific and professional publications, at meetings of professional and scientific associations, • appreciating the values of the principle of intellectual freedom and the right to free access to information, while recognising the right to privacy of an individual in the preserved archival and documentary material and the confidentiality of the service, • autonomy, critical thinking, efforts in terms of quality by assuming responsibility for their work, • different ways of communicating in global and multicultural environments, • critical reflection and the ability to develop social and communication skills, • participating in activities of organisations striving to improve the quality of professional services in archives, documentation centres and in information work and in improving the position of the professions in society. (programme-specific competences):

- knowledge and understanding of the history and development of archival science connected with other sciences important for the work and operation of archives and documentation centres,
- planning and management of effective archival and documentation services,
- knowledge and understanding of the development of institutions and the internal structures of creators,
- understanding archival science and its impact on the operation of modern organisations for long-term preservation and archiving of documentation,
- learning about the traditional forms of creating and operating with documents,
- analysing documents and learning about document management procedures,
- understanding that documents are information carriers and their impact on the creation of information,
- working with different groups of users,
- analysing and solving specific professional problems in archival science in institutions and corporations through creative application of research methods and procedures,
- interdisciplinary application of basic knowledge in archival science and other related sciences relevant for operating of institutions or corporations that work in long-term preservation or archiving of documentation, in planning and organisation of business and professional functions, both at international and national level,
- placing new information and interpretation in the context of professional functions,
- planning and application of information and communication technology and systems for support and as source of data and information,
- implementing professional tasks to collect, store and process material and information regardless of their physical form or medium on which they are recorded,
- long-term maintenance, management, transformation and migration of machine-read data and documents,
- knowledge of the possibilities and solutions in interdisciplinary approach to solving problems related to documentation and its metadata.

Website	https://www.nok.si/en/register/diplomirani-arhivist-vs-diplomirana-arhivistka-vs

Title	Master's degree in teaching school librarianship
Awarding body or competent authority	University of Ljublana, Faculty of Arts
EQF	7
Formal or non-formal	Formal

Description of qualification	Students will be able to: ● manage a library professionally, ● analyse and develop libraries and other collections of physical documents, library catalogues, various other documentation and databases, ● understand and recognise information technology needs regarding the different criteria and to have an insight into the actions of the individual in searching and using information, sources and services, ● be familiar with different types of users in terms of age and other characteristics and work with them, ● plan and implement user studies, ● understand the concept of IT literacy, processes of raising IT literacy and the role of the IT expert/librarian in this, ● organise and implement programmes of IT literacy in schools of all types.
Provider URL	https://www.nok.si/en/register/magister-profesor-solskega-knjiznicarstva-magistrica-profesorica-solskega-knjiznicarstva

Annex 4 – Bulgarian formal and non-formal training centres and programmes

License N / Лицензия №	Name / Наименование	Place / Населено място	Status / Статус
2019121505	VTC ORFEY at ANHEL M OOD / ЦПО ОРФЕЙ към АНХЕЛ М ООД не	Sofia / София	Active / активна
2018121425	VTC at Voenna akademiya "G. S. Rakovski" / ЦПО към Военна академия "Г. С. Раковски"	Sofia / София	Active / активна
2018121419	VTC at 8 MM IVENTS EOOD / ЦПО към 8 ММ ИВЕНТС ЕООД	Sofia / София	Active / активна
2017121372	VTC at Sofiyski universitet "Sv. Kliment Ohridski" / ЦПО към Софийски университет "Св. Климент Охридски"	Sofia / София	Suspended / прекратена
2016121302	VTC at Sdruzhenie "Alternativa za teb" / ЦПО към Сдружение "Алтернатива за теб"	Veliko Tarnovo / Велико Търново	Active / активна
2016121291	VTC at Sdruzhenie Druzhestvo za zaetost na bezrabotni litsa – DEMO/ ЦПО към Сдруж ние Дружество за заетост на безработни лица - ДЕМО	Voluyak / Волуяк	Active / активна
2015121284	VTC at "Profesionalen tsentar za obuchenie Donka Marinova" OOD / ЦПО към "Професионален център за обучение Донка Маринова" ООД	Pleven / Плевен	Active / активна
2015121282	VTC at Universitet po bibliotekoznanie i informatsionni tehnologii / ЦПО към Университет по библиотекознание и информационни технологии	Sofia / София	Active / активна
2015121281	VTC at ALTERNATIVI ZA GRAZhDANSKO RAZVITIE OOD / ЦПО към АЛТЕРНАТИВИ ЗА ГРАЖДАНСКО РАЗВИТИЕ ООД	Ruse / Русе	Active / активна
2015121257	VTC at Natsionalno sdruzhenie za razvitie na obshtestvoto / ЦПО към Национално сдружение за развитие на обществото	Sofia / София	Active / активна
201112905	VTC at Vega Vasilevi EOOD gr. Lovech / ЦПО към Вега Василеви ЕООД гр. Ловеч	Lovech / Ловеч	Active / активна
200912779	VTC at "Ekont Ekspres OOD / ЦПО към "Еконт Експрес ООД	Ruse / Русе	Active / активна
200812729	VTC at "HARMONIYa 1" OOD / ЦПО към "ХАРМОНИЯ 1" ООД	Sofia / София	Active / активна
200812678	VTC at "KOMPLEKS KREDO EOOD s.Trudovets obl. Sofiya / ЦПО към "КОМПЛЕКС КРЕДО ЕООД с.Трудовец обл. София	Botevgrad / Ботевград	Active / активна

200712463	VTC at "DEIZA KONSULT EOOD gr. Varna / ЦПО към "ДЕИЗА КОНСУЛТ ЕООД гр. Варна	Varna / Варна	Active / активна
200612389	VTC at "DEKSI KONSULT EOOD gr. Pleven / ЦПО към "ДЕКСИ КОНСУЛТ ЕООД гр. Плевен	Pleven / Плеве	Active / активна
200612327	VTC at Sdruzhenie "Asotsiatsiya Savremenni chitalishta" / ЦПО към Сдружение "Асоциация Съвременни читалища"	Sofia / София	Active / активна
200512265	VTC at "Fondatsiya za sotsialni investitsii i resursi gr. Sofiya / ЦПО към "Фондация за социални инвестиции и ресурси гр. София	Sofia / София	Active / активна
200512251	VTC at "STIK" EOOD/ ЦПО към "СТИК" ЕООД	Varna / Варна	Active / активна
200512248	VTC at Sdruzhenie "Alternativa Popovo-21 vek" / ЦПО към Сдружение "Алтернатива Попово-21 век"	Popovo / Попово	Active / активна
200312133	VTC at "Regionalen tsentar za profesionalna kvalifikatsiya" OOD / ЦПО към "Регионален център за професионална квалификация" ООД	Pleven / Плевен	Active / активна
200312113	VTC at ET "Grigor Kupandolski-Grishasmil" / ЦПО към ET "Григор Купандолски-Гришасмил"	Dupnitsa / Дупница	Active / активна

Source: The National Agency for Vocational Education and Training (Register of Vocational Training Centres, 2020)

Schedule 1. VOCATIONAL TRAINING CENTRE / ULSIT

Title of training	Library Science
Type of training (formal, non-formal)	Formal
Training provider	Vocational Training Centre to the University of Library Studies and Information Technologies (ULSIT), Sofia (www.cpo.unibit.bg)
NQF level	4
EQF level	4
Duration in hours	Total 960 hours: - 470 hours (lecture, discourse) - 490 hours (practice)
Format (in-person, online, blended)	In-person (daily); online; blended
Workplace learning	Yes

required?	
Competencies acquired through training/learning outcomes defined	• To make inventories and classifications of various documents; to include them in traditional and/or e-catalogues in the library; • Works in a team actively participating in the task distribution, cooperates the team members when carrying out the tasks and seeks help from colleagues; able to take responsibility; • Works with library documentation and standards; • Keeps record and schedule of the events reflected in the culture events calendar of the region / culture community centre / the school; • Makes a plan and report on the job done and presents it to the school authorities / the culture community centre board / the municipality council / the residents; • Initiates activities distributing the library and information literacy amongst the patrons; • Creates, conserves and safeguards the library stock; • Discloses library stock through traditional and electronic catalogues and other methods; • Provides referential-bibliographic and information services to patrons; • Arranges and conducts trips in the library, meetings with authors and other events; develops designs on library showcases, exhibitions and displays and implements them; • Participates in the implementation of national and international projects;

Schedule 2. VOCATIONAL TRAINING CENTRE / HARMONY1 VTC LTD

Title of training	Library Science For Librarian
Type of training (formal, non-formal)	Formal
Training provider	HARMONY 1 Vocational Training Centre LTD, Sofia (www.harmonia1.com)
NQF level	4
EQF level	4
Duration in hours	Total 960 hours: 478 hours (lecture, discourse); 482 hours (practice)
Format (in-person, online, blended)	In-person Daily

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Workplace learning required?	Yes		
Competencies acquired through training/learning outcomes defined **Knowledge**	See below		
1.1. Identifies risk situations and can take the necessary actions to protect the staff and property of the library **1.2. Applies fire and emergency safety rules**	1.1. Identifies risk situations and can take the necessary actions to protect the staff and property of the library 1.2. Applies fire and emergency safety rules 1.3. Keeps the workplace and technological equipment clean in accordance with the sanitary and hygiene requirements 1.4. Participates in the activities for initial and periodic occupational safety briefing of librarians and library staff 1.5. Does not pollute the environment with their work (observes rules for destruction of equipment, secondary raw materials, etc.)	**1. Knows, complies with and applies the rules for health and safety at work**	
2.1. Knows and uses basic signs in nonverbal communication **2.2. Knows and uses basic techniques in verbal communication** **2.3. Knows and uses the basic rules and techniques for composing texts (spelling rules; selection of style, organising and structuring a text, arranging what is written, using tables, graphs, charts, statistics, quotes or other supplementary**	2.1. Uses basic techniques in verbal communication	2. Has language and communication culture	

text information; text arranging and formatting, etc.) **3.1. Learns the basic rules and techniques of business communication 3.2. Learns the basic rules and techniques of drawing tables**	3.1. Knows the techniques used in word processing of documents 3.2. Knows the techniques of presenting information (prepares text and image presentations)	3. Knows how to find information online, works with software products and document-generating products
4.1. Describes the structure and organisation of the library network in the country 4.2. Knows the requirements of the Labour Code in relation to contractual relations between an employer and an employee 4.3. Knows the requirements of the Labour Code in relation to contractual relations between an employer and an employee 4.4. Knows the requirements of the Labour Code in relation to contractual relations between an employer and an employee	4.1. Protects the personal data of users and observes technological discipline and internal order	4. Knows the structure and organisation of the library system and the powers of officials

5.1. Applies basic legal and accounting requirements for safekeeping library stocks **5.2. Knows and applies the basic requirements for storage of library stocks**	5.1. Be able to create documents for the activity of the library: library rules, rules for providing services to readers 5.2. Maintains different types of library documentation (inventory book, library stock movement book, acts of withdrawal, etc.) 5.3. Be able to work with different state standards in the field of library information service and documentation, standard for library information services	5. Knows and applies the normative documents for work in the library, the rules for preparation, processing and storing of documents and information
6.1. Classifies library services in the annual plan of the library indicating the responsibilities, timing and scope of work	6.1. Prepares a calendar schedule of events covered in the cultural calendar 6.2. Prepares a library performance report and submits it for the purposes of statistics, accountability and other needs for information of the management	6. Prepares an annual plan and report on the work of the library
7.1. Knows the rules and processes for completing library documents by means of purchase, donations, book exchange, participation in projects	7.1. Explores different options and sources of information on completion (publishing plans, electronic and traditional bookstores, book fairs, etc.) 7.2. Considers the need to further complete and enrich the available stock	7. Completes library documents

8.1. Knows the basic rules and requirements for processing library documents (standards) **8.2. Knows the system of cataloguing, signing and arranging specific to each library**	8.1. Maintains the system of traditional and/or electronic catalogues in the library	8. Processes and catalogues the library stock
9.1. Knows the principles of sequential format, alphabetical or topic-based arrangement of the stock specific to each library **9.2. Knows the stock inventory process**	9.1. Performs regular reordering and/or cleaning of the stock based on the user demands 9.2. Performs regular reordering and/or cleaning of the stock based on the user demands	9. Arranges and stores the library stock
10.1. Knows the technology of withdrawing library documents for various reasons	10.1. Complies with the requirements for proper storage of the library stock 10.2. Complies with the requirements for humidity, ventilation, lighting, disinfection, disinfestation, etc.	10. Protects the library stock

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11.1. Organises exhibitions, showcases and other events	11.1. Elaborates rules for providing services to readers by determining the timelines and types of materials that readers may borrow 11.2. Elaborates and implements programs for working with reading children 11.3. Elaborates and implements programs for working with reading adults	11. Provides library services to readers
12.1. Directs readers when searching for documents and/or information in the library	12.1. Conducts reference interviews on questions asked by readers 12.2. Makes verbal factual and topic-based inquiries based on user requests 12.3. Searches useful and practical information required by the local citizens	12. Provides reference services to readers
13.1. Organises different schools and/or interest clubs based on the interests of citizens **13.2. Organises different schools and/or interest clubs based on the interests of citizens**	13.1. Maintains a constant contact with local and non-governmental organisations, educational institutions and other public institutions and participates in the cultural events organised by them 13.2. Together with local organisations participates in the implementation of national and international projects	13. Organises cultural events in the library

Schedule 3. VET SCHOOL

Title of training	Library Science
Type of training (formal, non-formal)	Formal Under a curriculum approved by the Ministry of Education (https://www.mon.bg/bg/100055)
Training provider	National High School of Polygraphy and Photography in Sofia (https://www.npgpf.bg/en/specialty/library-science)
NQF level	4
EQF level	4
Duration in hours	Length of Study: 5 years *For the specific vocational training:* Total 1370 hours: 854 hours (lecture, discourse); 516 hours (practice)
Format (in-person, online, blended)	In-person Daily
Workplace learning required?	Yes
Competencies acquired through training/learning outcomes defined	*Main activities:* The librarian shall collect, process and catalogue the library funds; ensure their protection, conservation and restoration; provide library information services; organise and manage library activities; perform research and teaching activities in the field of library studies and library information activities. *Responsibilities and obligations:* The librarian shall be responsible for performing the main library activities, including purchasing, selecting and processing, storing and maintaining library documents, based on the agreed in their job description. The librarian shall collaborate on the performance of short and long-term tasks of the library in good quality and in due time. Also, shall be responsible for protecting the personal data of users and for observing technological discipline and internal order.

Schedule 4. EDUCATIONAL-QUALIFICATION DEGREES 'BACHELOR' / ST. KLIMENT OHRIDSKI UNIVERSITY OF SOFIA

Title of training	BA Program: Public Information Systems Professional Field: 3.5. Public Communications and Information Sciences Fields of Education and Training (ISCED-F 2013)
Type of training (formal, non-formal)	Formal Form of Study: Regular BA Programme see: *http://phls.uni-sofia.bg/documents/articles/2650/planpis.pdf*
Training provider	ST. KLIMENT OHRIDSKI UNIVERSITY OF SOFIA
NQF level	6
EQF level	6
Duration in hours	Length of Study: 8 semesters

Format (in-person, online, blended)	In-person, online, blended
Workplace learning required?	Yes
Competencies acquired through training/learning outcomes defined	1.Educational objectives *Goals:* Professional skills: to create professionals able to provide information infrastructure for different institutions and organisations and information for the society of regional, national and international level; to create preconditions for creation of a network of professionals able to recognise information needs, to evaluate and build information systems, to manage information processes and to design and develop information services; to acquire professional skills for processing information resources and submit information to science, education, culture and business by systems of information networks; to conduct research and analyse changes in information infrastructures and information services in accordance of public expectations and needs; to develop and introduce schemes and conceptual models for archiving, organising, classifying and recovering of information; to write science articles and papers; to create manuals, online and interactive browsers which facilitate access to information resources. 2.Training *Knowledge and skills necessary for successful professional activity* The training of the students is based on a modern oriented, flexible and balanced curriculum between theoretical knowledge and practical skills. It has achieved a balance and harmonisation of the disciplines studied, including modern curricula and content, which creates the conditions for the students to form the basic skills and competencies necessary for mastering the information science. The curriculum also includes a set of elective disciplines and content that enable students to further develop and build their knowledge according to their specific interests and skills. 3. Professional skills *Knowledge* Students acquire professional competencies related to the development of information databases and services, implementation and design of tools for assessment and analysis of information systems and information resources, organisation and management of information resources, planning and development of information services and Information products. *Skills* There are building skills: for the design and administration of information systems (traditional and digital); for design of Information Services for all for all target groups;

for maintaining information streams;
to support information services (traditional and digital);
for information provision of science, education, culture, business, etc.

Schedule 5. EDUCATIONAL-QUALIFICATION DEGREES 'BACHELOR'/UNIVERSITY OF LIBRARY STUDIES AND INFORMATION TECHNOLOGIES (ULSIT)

Title of training	BA Programme Library and Information Management Professional Field: 3.5. Public Communications and Information Sciences
Type of training (formal, non-formal)	Formal Form of Study: Regular BA Programme see: *https://www.unibit.bg/learning-activity/bachelor/bachelor-plans*
Training provider	University of Library studies and Information Technologies - ULSIT
NQF level	6
EQF level	6
Duration in hours	Length of study: 4 years (8 semesters)
Format (in-person, online, blended)	In-person, online, blended
Workplace learning required?	Yes
Competencies acquired through training/learning outcomes defined	The students having acquired Bachelor's Degrees in Library and Information Management have a full-range qualifications framework of knowledge and skills and are prepared to perform the following set of activities: ▪ To be able to analyse the external and internal environment and based on this analysis plan the activities of public libraries, school, specialised, university and other scientific libraries, information centres, community centres and other cultural and public institutions, as well as the main departments and structural units within them; ▪ To participate in the elaboration of business plans and in decision-making related to the strategy and tactics of information services; ▪ To organise, manage and control activities related to the presentation of the institution to various governmental and non-governmental organisations, to the local authorities and citizens;

- To apply oral, written, visual and electronic methods of communication with local authorities, with different age groups, with businesses in order to attract new users and to better reveal the richness of library collections;

- To seek quality information with print or electronic sources and provide such information for use;

- To study the information needs of library and information service users in a professional manner using modern sociological and psychological methods; to work with focus groups towards optimising customer service;

- To organise and manage the training of users;

- To independently search for sources and information in the library by traditional or electronic means.

Requirements for specialist training

Librarians or information specialists having Bachelor's Degrees in Library and Information Management must complete an in-depth scientific and theoretical training in the specialty, including:

- Specialised training in library, information and project management in order to acquire skills and knowledge in planning, organising and controlling the overall work of libraries, information centres, community centres and other cultural and public institutions;

- Fundamental training on the nature of and diversity within the library institution; knowledge of the basic library and bibliographic services and processes and a thorough knowledge of modern library information technologies;

- Theoretical and practical training in methods for searching and organising quality information contained within traditional or electronic sources and providing it to users by electronic means;

- Basic knowledge of marketing and public communication for optimal organisation of information and use of methods for interaction with audiences in order to introduce library collections, services and events.

The specialists should have the following skills:

- Setting and independently solving the tasks relating to the arrangement and ensuring optimal use of information resources in libraries and other entities holding large volumes of information;

- ▪ Being able to develop and manage projects;
- ▪ Being competent in the development and implementation of digitisation programs and the creation of their own electronic resources;
- ▪ Organising and managing various initiatives for interaction with different audiences;
- ▪ Carrying out independent sociological, psychological and other scientific researches needed to analyse the quality of the services rendered and the extent of their approval by users, and also being able to improve the parameters of the information and communication forms used in the library and to implement new services or forms.

Annex 5 – Number of library employees in Bulgaria from 2013-2018[91]

Year	Total	Total university graduates	Including with a librarian's qualification	Including others	Total secondary school graduates	Including with a librarian's qualification	No secondary education
Staff of 3,938 libraries							
2013	4,0286	2,934	2,228		1,315	362	37
Staff of 47 libraries with library stock of over 200,000 volumes of literature							
2015	1,650	1,389	1,169	220	248	33	13
2016	1,620	1,380	1,157	223	229	27	11
2017	1,611	1,380	1, 165	215	224	30	7
2018	1,672	1,415	1,191	224	250	35	8

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[91] *Заявка справка, 2020*

Annex 6 – Bulgarian job vacancy mapping

(Data copied from specific job postings)

Schedule 6. JOB VACANCY/ LIBRARIAN

Job title and any aliases	Librarian		
Years of experience required	Not specified		
Tasks/responsibilities	Provides library and reference information services to various categories of readers; Provides library documents from the area stock for use on the spot or for borrowing for home use; Organises, arranges and protects the available and reference stock with free access		
	General	Transversal	Specific professional
Competencies required	• Computer skills • Ability to work in a team • Communication skills, emotional resilience, tact, sociability	• Independence, organisation, responsibility, initiative, loyalty, honesty.	
Skills required	Not specified		
Number of times this type of vacancy appeared	Not known		

Schedule 7. Job Vacancy / Head of Department

Job title and any aliases	Head of Library Collections Department
Years of experience required	Two (2) years
Tasks/responsibilities	• Provides general management, coordination and control of services of the Department; • Creates conditions for and ensures compliance with the job requirements of its subordinate assistants and suggests changes in their parameters and is also involved in the performance assessment process. Uses various incentives which they find appropriate, organises the continuing education and qualification of specialists in the area; • Performs selection of library documents for enrichment of library collections in coordination with the service units and specialised departments of the library;

	• Member of the Board of Directors, other councils, committees and task groups related to the main functions of the Library Department; • Develops and updates the Description of Stocks together with Heads of Departments and Head of Sectors; • Summarises readers' searches and develops a strategy for developing library collections together with the Completion Council; • Organises and coordinates the disclosure and presentation of library stocks by means of the electronic catalogue; • Prepares annual plans and activity reports for the Library Collections Department and is responsible for the documentation of the Department; • Participates in the elaboration of rules, instructions and other types of documents concerning the library activities; • Communicates managerial decisions to the employees, approves their suggestions and forwards them to councils and the management; • Takes part in the secondary selection of library documents; • Monitors, controls and coordinates the services of collaborators within the Department with a view to complying with all regulatory acts, instructions, rules, etc.; • Observes the rules for health and safety at work and fire protection; • Performs all duties in carrying out the assigned work in accordance with Article 126 of the Labour Code; • Observes the Internal Regulations of the entity; • Available when needed, even outside of normal business hours; • Knows and complies with the internal regulations of the institution, e.g. instructions for safe operation and good service; • Improves their professional qualification. • Improves their professional qualification.

Competencies required	General	Transversal	Specific professional
	• Foreign language skills	-	-
Skills required	-		
Number of times this type of vacancy appeared	Not known		

Schedule 8. Employment Agency Jobseeker Profile, https://www.az.government.bg/bg/ejobs/view_trl/

Residence	By municipality
Key Characteristics	

Occupations	Selected under the National Classification of Occupations and Positions in the Republic of Bulgaria (NCOP)

Type of education	Selected from different educational degrees
Specialty	Selected under the List of Professions for Vocational Education and Training (LPVET)

Additional Skills

Language skills	There is an option added referring to written language proficiency
Computer skills	Can be selected
	Internet and email use; databases; graphic applications; spreadsheets; local area networks; basic computer skills, prepress, presentations; computer work; design systems; accounting products; word processing
Driving skills	Selected among categories

Preferences and consents

Age	Can be selected:
	All ages
	Below 29
	From 30-39
	From 40-49
	From 50-54
	Over 55

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Annex 7 – Bulgarian librarian profile according to SER[92]

Librarian profile	
Professional field	Library and Information Sciences and Archival Science; Code: 322
Profession	Librarian; Code: 322010
Specialty	Library Science; Code: 3220101
Degree of professional qualification	3
National Qualification Framework (NQF) level:	4
Duration of study:	Varies in different VTC - Up to 18 months or 1.5 years
Total number of hours:	For all programmes up to 960
Of which: Number of hours in lecture/discourse:	Vary between 470-480
Number of hours in practice:	Vary between 470-480
Format of study:	Daily; evening; remote (blended)
Organisational form:	Qualification course
Minimum baseline educational level:	Secondary education or acquired right to right to take state matriculation exams for the completion of secondary education and is to be determined by the state educational requirements for acquisition

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[92] *(NAVET; 2014)*

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Annex 8 – Learning outcomes and competences of librarian training programmes

| Learning outcomes | | |
Knowledge	**Skills**	**Competencies**
Knows labour law, its status, rights and obligations;	Be familiar with the structure and organisation of the library system the powers of officials;	Be able to describe and classify different types of documents; include them in traditional and / or electronic catalogues of the library;
Knows, complies with and applies the rules for health and safety at work;	Knows and applies the normative documents for work in the library, the rules for preparation, processing and storage of documents and information;	Works in a team by actively participating in the assignment of tasks, assisting team members in their execution and seeking assistance from them; be able to bear responsibility;
Be able to conduct a conversation;	Knows how to prepare an annual plan and report on the work of the library;	Works with library documentation and standards;
It has the ability to conduct business correspondence;	Knows the structures of municipal and / or school administration and their powers;	Maintains a calendar schedule of the events reflected in the cultural calendar of the region / community centre / school;
Knows and applies the rules for working with devices on a computer system;	Possesses basic knowledge and skills to work with accounting documentation related to the performed administrative activities and paid services in the library and / or the community centre;	Works and presents it to the school management / community centre board / municipal council / citizens;
Applies the necessary software and technologies according to their tasks;	Knows the rules and processes for completing library documents through purchase, donation, book exchange;	Initiates activities to disseminate library and information literacy among users;
Knows the basic types of Internet applications;	Knows the basic rules for library service to readers;	Creates, stores and preserves library funds;
Knows various multimedia formats;	Knows how to protect the library stock;	Reveals library funds through traditional and electronic catalogues and other methods;
Works with office equipment - computer, telephone, fax, scanner, copier, multimedia;	Knows the techniques of reference services for readers;	Provides reference bibliographic and information services to readers;
Finds information on the Internet, works with software and document-generating products;	Be aware of the rules for the design and implementation of a project related to the operation of the library;	Conducts excursions to the library, meetings with authors and other events; develops plans for showcases and exhibitions and implements them;
	Knows the rules for organising cultural events in the library / community centre / school;	Participates in the implementation of national and international projects;

SER Competencies in the programmes of some VTCs

1. Knows, complies with and applies the rules for health and safety at work	1.1. Follows the instructions for health and safety at work
	1.2. Properly and safely maintains the technological equipment and office appliances
	1.3. Keeps the workplace and technological equipment clean in accordance with the sanitary and hygiene requirements
	1.4. Applies fire and emergency safety rules
	1.5. Participates in the activities for initial and periodic occupational safety briefing of librarians and library staff
	1.6. Does not pollute the environment with their work (observes rules for destruction of equipment, secondary raw materials, etc.).
	1.7. Identifies risk situations and can take the necessary actions to protect the staff and property of the library
2. Has language and communication culture	2.1. Knows and uses basic signs in nonverbal communication
	2.2. Knows and uses basic techniques in verbal communication
	2.3. Knows and uses the basic rules and techniques for composing texts (spelling rules; selection of style, organising and structuring a text, arranging what is written, using tables, graphs, charts, statistics, quotes or other supplementary text information; text arranging and formatting, etc.)
3. Knows how to find information online, works with software products and document-generating products	3.1. Knows the techniques used in word processing of documents
	3.2. Knows the techniques of presenting information (prepares text and image presentations)
	3.3. Learns the basic rules and techniques of business communication
	3.4. Learns the basic rules and techniques of drawing tables
Applies the necessary software and technologies according to their tasks	
Knows the basic types of Internet applications	
Works with a personal computer and software applications	
Works with Internet and communicates online	
Works with automated library systems	
4. Knows the structure and organisation of the library system and the powers of officials	4.1. Describes the structure and organisation of the library network in the country
	4.2. Knows the structure, organisation and hierarchy of departmental structure
	4.3. Knows the rights and obligations of the staff in the organisation by job description

	4.4. Knows the requirements of the Labour Code in relation to contractual relations between an employer and an employee
	4.5. Protects the personal data of users and observes technological discipline and internal order
5. Knows and applies the normative documents for work in the library, the rules for preparation, processing and storing of documents and information	5.1. Be able to create documents for the activity of the library: library rules, rules for providing services to readers
	5.2. Maintains different types of library documentation (inventory book, library stock movement book, acts of withdrawal, etc.)
	5.3. Be able to work with different state standards in the field of library information service and documentation, standard for library information services
	5.4. Applies basic legal and accounting requirements for safekeeping library stocks
	5.5. Knows and applies the basic requirements for storage of library stocks
6. Prepares an annual plan and report on the work of the library	6.1. Classifies library services in the annual plan of the library indicating the responsibilities, timing and scope of work
	6.2. Prepares a calendar schedule of events covered in the cultural calendar
	6.3. Prepares a library performance report and submits it for the purposes of statistics, accountability and other needs for information of the management

Creating, storing and protecting library stock

7. Completes library documents	7.1. Knows the rules and processes for completing library documents by means of purchase, donations, book exchange, participation in projects
	7.2. Explores different options and sources of information on completion (publishing plans, electronic and traditional bookstores, book fairs, etc.)
	7.3. Considers the need to further complete and enrich the available stock
8. Processes and catalogues the library stock	8.1. Knows the basic rules and requirements for processing library documents (standards)
	8.2. Knows the system of cataloguing, signing and arranging specific to each library
	8.3. Maintains the system of traditional and/or electronic catalogues in the library
9. Arranges and stores the library stock	9.1. Knows the principles of sequential format, alphabetical or topic-based arrangement of the stock specific to each library
	9.2. Applies various techniques to effectively detect the library stock (signposts, dividers, signature captions, etc.)
	9.3. Performs regular reordering and/or cleaning of the stock based on the user demands
	9.4. Knows the stock inventory process

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10. Protects the library stock	10.1. Complies with the requirements for proper storage of the library stock
	10.2. Complies with the requirements for humidity, ventilation, lighting, disinfection, disinfestation, etc.
	10.3. Knows the technology of withdrawing library documents for various reasons
Providing services to readers	
11. Provides library services to readers	11.1. Elaborates rules for providing services to readers by determining the timelines and types of materials that readers may borrow
	11.2. Elaborates and implements programs for working with reading children
	11.3. Elaborates and implements programs for working with reading adults
	11.4. Organises exhibitions, showcases and other events
12. Provides reference services to readers	12.1. Conducts reference interviews on questions asked by readers
	12.2. Makes verbal factual and topic-based inquiries based on user requests
	12.3. Searches useful and practical information required by the local citizens
	12.4. Directs readers when searching for documents and/or information in the library
13. Organises cultural events in the library	13.1. Organises and holds topic-based lectures, meetings with authors and other events depending on the type of library
	13.2. Organises different schools and/or interest clubs based on the interests of citizens
	13.3. Maintains a constant contact with local and non-governmental organisations, educational institutions and other public institutions and participates in the cultural events organised by them
	13.4. Together with local organisations participates in the implementation of national and international projects

Source: Navet.government.bg. 2014. Национална Агенция За Професионално Образование И Обучение | НАПОО. [online] Available at: <https://www.navet.government.bg/> [Accessed 23 April 2020].

Annex 9 – Number of librarians trained for the acquisition of a professional qualification degree in the professional field 322 Librarian and Information sciences and Archival Science 2015 - 2019[93]

Year	Number of trained librarians	Proportion of all (%) trainees of Vocational Training Centres (VTC)
2019	17	0.10
2018	205	0.77
2017	22	0.13
2016	58	0.59
2015	23	0.19

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[93] *Navet.government.bg. 2020. Статистика На Обучените Лица | Национална Агенция За Професионално Образование И Обучение. [online] Available at: <https://www.navet.government.bg/bg/statistika-na-obuchenite-litsa/> [Accessed 23 April 2020].*

Annex 10 – Formal education programmes in Latvia for librarians

Education level / type	Higher education				Secondary education
	Doctorate	Master's degree	Bachelor's degree	First level higher vocational education (college education)	Vocational secondary education
Diploma, Degree, Certificate	Diploma of Doctor of Communication science; subfield: Library Science	Diploma of Master in Social sciences; Library science and information	Diploma of Bachelor in Social sciences: Library science and information	Diploma of Library Information Specialist	Certificate of Librarian
EQF	8	7	6	5	4
Study form	Full-time 6 semesters (part-time 8 semesters)	Full-time 4 semesters	Full-time 6 semesters (part-time 8 semesters)	Part-time 5 semesters	Part-time (sessions)
Provider institution	The Department of Communication Studies and the Department of Information and Library Studies *University of Latvia*	The Department of Information and Library Studies, *University of Latvia*	The Department of Information and Library Studies, *University of Latvia*	Latvia Culture College, *Latvian Academy of Culture*	Competence Development Centre, *National Library of Latvia*

Title:	**Librarianship in Europe – mapping professional needs**			
Authors:	Tiana Zignani / PL2030, Flavia Massara / ICCU, Aneta Doncheva, Spaska Tarandova / GLBF, DAISSy Research Group / HoU, Baiba Holma, Daina Pakalna / KISC			
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Annex 11 – Professions included in the Latvian profession classifier related to the field of libraries

Major group	Code	Small group	Code	Profession	Code
Managers	1	Heads of specialised services"	134	Head/director of Library	1349 34
				Head of department	1349 32
Senior Specialists	2	Librarians, archivists and related professionals	262	Bibliographer	2622 01
				Chief librarian	2622 02
				Documentary	2622 03
				Computer specialist	2622 04
				System librarian	2622 05
				Fund-keeper (in the field of libraries)	2622 06
				Librarian of educational establishments	2622 07
				Metadata editor	2622 08
				Metadata maker	2622 09
Specialists	3	Art, culture and culinary specialists	343	Librarian	3433 01
				Library information specialist	3433 02
				Librarian of educational establishments (fourth and third level qualifications)	3433 03
Servants	4	Library staff	4411	Registrant	4411 01
				Library clerk	4411 02

Profesiju klasifikators. (Ministry of Welfare of the Republic of Latvia, 2020). [online] Available at http://lm.gov.lv/lv/index.php?option=com_content&view=article&id=80154 [Accessed 25 March 2020]

Title:	**Librarianship in Europe – mapping professional needs**				
Authors:	Tiana Zignani / PL2030, Flavia Massara / ICCU, Aneta Doncheva, Spaska Tarandova / GLBF, DAISSy Research Group / HoU, Baiba Holma, Daina Pakalna / KISC				
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Annex 12 – Tasks and responsibilities of heads/directors of libraries, chief librarians, and librarians in Latvia

Tasks and responsibilities and competences required for head/directors of libraries in the job vacancy advertisements 2017 - 2020

Transversal competences	How many times mentioned	General competences	How many times mentioned	Specific professional competences	How many times mentioned	Tasks/responsibilities	How many times mentioned
Ability to work with office equipment and information technology	11	*Ability to make decisions and plan their work*	2	*Professional skills in library work planning and management*	5	*Library work planning and organization*	24
Good collaboration skills and communication skills	11	*Set priorities, meet deadlines*	2	*The use of library information system*	5	*Processes and catalogues the library stock*	12
Advanced level of the official language	8			*Information acquisition, processing and analysis skills*	5	*Publicity of the library and organization of events*	10
Knowledge of foreign languages	5			*The ability to respond to the needs of readers*	5	*Introduction and development of information and communication technologies*	5
Good work organization and management skills	5					*Library user training*	5
Experience in working with customer service	2					*To ensure the collection, preservation and popularization of local history materials*	4

Title:	**Librarianship in Europe – mapping professional needs**		
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Work experience in project management	*2*						
Understanding of financial planning	*2*						
Accuracy and high sense of responsibility	*2*						
Ability to work in a team	*2*						
Ability to work creatively	*2*						

Tasks and responsibilities and competences required for chief librarians in the job vacancy advertisements 2017-2020

Transversal competences	How many times mentioned	General competences	How many times mentioned	Specific professional competences	How many times mentioned	Tasks/responsibilities	How many times mentioned
Good collaboration skills and communication skills	16	*Ability to make decisions and plan their work*	2	*The use of library information system*	11	*Publicity of the library and organization of events*	14
Ability to work with office equipment and information technology	11	*Decision making skills, the ability to set priorities, meet deadlines*	2	*Information acquisition, processing and analysis skills*	6	*To provide library customer service*	12
Knowledge of foreign languages	10			*Organization of events*	3	*Library user training*	3
Ability to work in a team	7			*Knowledge in cataloguing and UDC*	2	*Project preparation and implementation*	3
Advanced level of the official language	7					*Processes and catalogues the library stock*	3

	Title:	**Librarianship in Europe – mapping professional needs**	
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Accuracy and high sense of responsibility	3					Cooperation with schools and other institutions	3
Work with social networks	2						
Ability to work creatively	2						

Tasks and responsibilities and competences required for librarians in the job vacancy advertisements 2017-2020

Transversal competences	How many times mentioned	General competences	How many times mentioned	Specific professional competences	How many times mentioned	Tasks/responsibilities	How many times mentioned
Good collaboration skills and communication skills	10	Ability to make decisions and plan their work	1	The use of library information system	8	Publicity of the library and organization of events	6
Ability to work with office equipment and information technology	7	Decision making skills, the ability to set priorities, meet deadlines	2	Information acquisition, processing and analysis skills	6	To provide library customer service	6
Advanced level of the official language	6			Organization of events	4	Library user training	6
Knowledge of foreign languages	4					Processes and catalogues the library stock	3
Ability to work in a team	2					Project preparation and implementation	2
Accuracy and high sense of responsibility	2						
Ability to work creatively	2						

Annex 13 – Bulgarian skills needs in the library sector based on survey responses

Digital skills	"Already need/applying skills in my work"	"In 3-5 years"	"In 5-10 years "	"Have no need for it"
1.Digitization of material (e.g. in the context of a cultural heritage project, you digitized a series of historic texts)	41	9	3	12
2.Management of electronic resources (e.g.: tracking the selection, acquisition, licensing, access, maintenance, usage, evaluation retention and de-selection of your library's electronic information resources)	37	14	5	9
3.Library online services (e.g.: checking any requests made through your library's website)	48	8	5	10
4.Social media management/library marketing (e.g.: creating and running a social media campaign for an event at the library)	50	5	3	9
5.Information, data and media literacy (e.g.: analysis of sources and filtering them to find the information needed)	56	2	2	14
6. Communication through digital technologies (e.g.: using the appropriate tools to collaborate with co-workers on a project)	49	8	-	10
7.Digital content development (e.g.: knowing how to create an animated presentation such as a YouTube videos)	52	7	9	10
8.Netiquette & data protection & online safety (e.g.: knowing how to behave online in frustrating situations, knowing how to keep your data safe)	60	5	1	3
9.Programming (e.g.: programming with a specific language such as Scratch, HTML etc a basic procedure or app)	37	8	4	8
10. Copyright legislation (e.g.: finding images that are licensed under a certain type of Creative Commons license and can be used without the author's permission)	50	7	2	9

Annex 14 – Summary of skills needs from Italian survey respondents

Question 10	Skills needed immediately or already applied total	Skills needed in 3-5 years total	Skills no needed at all
Digitisation of material	5,9%	10,0%	22,4%
Management of electronic resources	7,1%	11,8%	14,9%
Library online services	11,8%	4,5%	14,9%
Social media management/library marketing	11,5%	7,3%	9,0%
Information, data and media literacy	11,5%	9,1%	7,5%
Communication through digital technologies	13,0%	6,4%	3,0%
Digital content development	10,6%	13,6%	3,0%
Netiquette & data protection & online safety	10,9%	10,0%	4,5%
Programming	5,6%	18,2%	14,9%
Copyright legislation	12,1%	9,1%	6,0%
Total	100,0%	100,0%	100,0%

Annex 15 – Allocation of time to responsibilities according to Italian respondents

Activities	None of my time	Not a lot of my time/not frequently	Some of my time	Most of my time	All of my time	Question 8 skills needed (% answers)
Collection management	21,4%	25,0%	44,6%	5,4%	3,6%	3,9%
Library communications & marketing	14,3%	32,1%	39,3%	14,3%	0	10,3%
Event planning & management	17,9%	16,1%	50,0%	16,1%	0	5,7%
Team management	23,2%	10,7%	37,5%	21,4%	7,1%	4,8%
Financial management	39,3%	12,5%	30,4%	10,7%	7,1%	
Information management	3,6%	32,1%	48,2%	7,1%	8,9%	8,5%
Patron support & service	7,1%	26,8%	32,1%	16,1%	17,9%	
Community assessment	26,8%	44,6%	21,4%	3,6%	3,6%	11,5%
Facilitation	44,6%	33,9%	17,9%	3,6%	0	9,4%

Annex 16 – Responses from Italian survey respondents on other training topics of interest

Topics suggested in question 11	Number of responses
Communication through digital technologies, social media, transmedia storytelling (e.g.: using the appropriate tools to collaborate with co-workers, administrators, users) and marketing	9
IT skills and troubleshooting	8
Community assessment (e.g.: assessing your community's needs and finding solutions to them)	5
Digital and graphic content development (graphic skills, video maker, podcast)	5
Knowledge of digital platform to create eLearning training activities and events and share them in a professional network	4
Cataloguing and knowledge of new software	3
English Language	2
Exploring technological changes (e.g.: augmented reality, virtual reality, robotics, coding, blockchain, open data etc.)	2
Information literacy	2
Open Access knowledge	2
Sustainable development strategies	2
Advocacy strategies	1
Capacity for change	1
Centralized acquisitions of library resources	1
Community facilitation (e.g.: gathering your community to discuss and offer solutions to a local issue)	1
Comparison with international library realities (e.g. job shadowing)	1
Contract regulations	1
Copyright legislation	1
Design of the social library	1
Digital archival science	1
European planning, cultural heritage promotion and best practices	1
Events management	1
Fundraising	1
Integrated design of analogue and digital services	1
Knowledge of archival catalogues	1
Knowledge of digitization process and legislation	1
Knowledge of integrated system for messages and storage	1
Library and Information Science knowledge	1

Measurement and evaluation of library services and impact users'	1
Metadata	1
Reading promotion for adult users	1
Smart working	1
Teamwork skills for projects	1
Techniques to create participatory communities	1
Technological collaboration with other institutions (museums, archives, etc.) to build digital cultural heritage archives	1
Use of electronic resources for children and adolescents	1
User support	1

Annex 17 – Identified best practices in Bulgaria

Title of training	Topics covered	Duration	Format
Digital competencies for employees	Professional digital skills	45 academic hours with possible support from teachers outside of this lasting more than 2 hours	In-person
Digital competence module	Training in digital technologies and skills	45 hours (total programme lasts 960 hours)	In-person (daily), online, and blended
ICT/Digital competencies	Initial computer literacy (Microsoft Word, Excel, PowerPoint, information retrieval, safe work on the Internet) Profession-specific training	20-45 hours with total programme length lasting from 2-3 weeks and up to 2 months	In-person, online distance learning, blended
Training programme in key competencies	Digital skills Language skills	At least 20 hours and up to 30-40 hours	In-person, online distance learning
Professional training of librarians in difficult regions with very remote and small settlements	Librarianship	960 hours	In-person, online distance learning, blended

Annex 18 - Identified best practices in Greece

Title of training	Topics covered	Duration	Format
Analysing and designing information systems	Analysis and design of information systems	One academic semester	In-person
Leading librarian training	Leadership, service development, communication, human resource management	3 hours twice a year	In-person with 5 sessions in total
Librarian training	Digital content, new services in Greek libraries	Depends on the webinar or workshop organised	In-person or online

Annex 19 - Identified best practices in Italy

Title of training	Topics covered	Duration	Format
Sapere Digitale	Information, digital, and data literacy	Various depending on the theoretical and practical modules taken	In-person, online, blended
Biblionova training	Information literacy, cataloguing, open access	• 2/3 days with 6/7 hours of teaching in a day • On demand courses • Annual courses	In-person, online, and blended. The in-person format is preferable when laboratory activities are a part of the programme
"La comunicazione efficace in biblioteca" - Effective communication in libraries	Online and offline digital communication	14 hours over 2 meeting periods	In-person
Digital librarian training	Digital librarianship	20 hours spread over 10 lessons	Two modules with 5 lessons in each module online training

Annex 20 - Identified best practices in Latvia

Title of training	Topics covered	Duration	Format
Architecture of Information and Communication Technologies in Public Administration	How to navigate new e-services	8 academic hours	In-person and online
Library sciences	Librarianship	960 hours	Blended learning (including in-person, distance learning through Moodle, and an internship)