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<p>Abstract: D4.7 describes the task 4.5 and its aim to collect information on future cooperation between current and potential CESSDA partners. Using the information from the non-CESSDA member data services, the 4.7 deliverable summarises the current state and needs of these data services.</p>	
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EXECUTIVE SUMMARY

This report is one of the results of the CESSDA SaW (Strengthening and widening) project task 4.5 - Strengthening and widening through establishing a CESSDA partner network of established non-member data services to support processes of integration into CESSDA membership and establish a wide collaborative environment among European data service. The first goal of the task 4.5 was to discover and monitor the capacities of European data services outside the current CESSDA ERIC membership. In relation to the task 4.5 two main objectives were discussed and met at the collaborative workshops during the CESSDA SaW project. The first objective was to establish an informal collaborative network of current and potential CESSDA partners. The second objective was to collect information regarding the needs of possible future cooperation. Using the information from the non-CESSDA member data services, deliverable D4.7 summarises the current state and needs of these data services and examines them on four main levels: the technical level, the human-resources level, the legal and the political framework of the data services.

Abbreviations and Acronyms

ADP	Arhiv Družboslovnih Podatkov
ADS	Polish social data archive
AuSSDA	The Austrian Social Science Data Archive
CNRS	Centre Nationale de la Recherche Scientifique (Progedo)
CPA	Capability Process Area
CRA	Capability Requirements Area
čSDA	Czech Social Science Data Archive
DANS	Data Archiving and Networked Services
DAS	Data Archive Service
DDA	Danish National Archive - Danish Data Archive
DDI	Data Documentation Initiative
DCC	Digital Curation Centre
DMP	Data Management Plan
DOI	Digital Object Identifier
DSA	Data Seal of Approval
EKKE	Ethniko Kentro Koinonikon Erevnon
ESSDA	Estonian Social Science Data Archive
FFZG	Filozofski fakultet Sveučilišta u Zagrebu
FORS	Swiss Foundation for Research in Social Sciences
FSD	Finnish Social Science Data Archive
GERD	Gross Domestic Expenditure on Research and Development
GESIS	Leibniz Institute for the Social Sciences
GDP	Gross Domestic Product
ICS-ULisboa	Instituto de Ciencias Sociais da Universidade de Lisboa
IDM	Institute for democracy and mediation
IEN	Institut Ekonomskih Nauka
IPR	Intellectual Property Right
ISDC	Israel Social Sciences Data Centre
JESDA	Joint Economic and Social Data Archive
KIIS	Kiev International Institute of Sociology
LiDA	Lithuanian Data Archive for Humanities and Social Sciences
LISER	Luxembourg Institute of Socio-Economic Research
LSZDA	Latvian Databank of Social Sciences
NSD	Norwegian Centre for Research Data
OAIS	Open Archival Information System
OAI-PMH	Open Archives Initiative Protocol for Metadata Harvesting
PID	Persistent Identifier
RDM	Research Data Management

RODA	Asociatia Arhiva Romana de Date Sociale (Romanian Social Data Archive)
So.Da.Net	Greek research infrastructure for the social sciences
SOHDA	Social Sciences and Humanities Data Archive
SU-SAV	Sociologicky Ustav Slovenskej Akademie Vied
TÁRKI	TÁRKI Alapítvány (TARKI Foundation)
UCD ISSDA	University College Dublin - Irish Social Science Data Archive
UGOT-SND	University of Gothenburg - Swedish National Data Service
UKDA	UK Data Archive
UniData	Università degli studi di Milano - Bicocca Data Archive

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1. INTRODUCTION

The development and widening of Data Archives since the creation of CESSDA in the 1970s has passed through many stages and phases. This report draws the current state of potential members aspiring to join the CESSDA ERIC, European organization recently evolved into a European Research Infrastructure Consortium. This report also investigates and illustrates the current state and needs of the new archives in candidate countries to meet general CESSDA requirements. In addition to that it remains an open question how CESSDA and its current members could be mobilized to support strengthening and widening activities of CESSDA ERIC.

The CESSDA SaW project created an opportunity for CESSDA ERIC to look for new possible ways to establish collaboration with non-CESSDA data services. To be able to establish such connections, first it was necessary to acquire more relevant information and knowledge about the capacities of European data services outside the current CESSDA ERIC membership. To reach this aim, collaborative workshops were organized to collect the necessary input from the participating non-CESSDA data archives. Furthermore, the work has been performed in close connection with other support tasks in Work Package 4 and activities within Work Package 3 devoted to the development of data infrastructures and the audit of state-of-the-art data archives in ERA countries.

The target group of task 4.5 are the non-CESSDA ERIC member countries, in which at least some proto-activities have been or are being implemented with the aim to organize a data archive service. Concerning the availability/recovery of relevant data archive services in those countries, reaching these services proved to be challenging, but thanks to the close cooperation with the task 3.2 information was acquired from those countries which are currently not included in the CESSDA SaW project and/or not able to participate in the collaborative workshops in the project.

During the past years of the CESSDA SaW project, the list of non-member countries was updated due to many countries joining CESSDA ERIC in that period. In some respects, these countries are comparable with the current non-member countries, but in other they differ. As a result, the Task 4.5 participants decided to keep these countries as the subject of this report, and the final list of investigated countries is as follows:

Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Estonia, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Luxembourg, Macedonia (FYRM), Moldova, Poland, Portugal, Romania, Serbia, Slovakia.

To reach the objectives of the task, the needs of the data services have been categorized. To assess the state of these data archives or services, four main aspects were identified: technical, human resources, legal and political framework. These categories form basis for the main chapters of the report. But as the current situation of the data archives shows, the available information about the above-mentioned aspects are uneven. For example, the information about human resources is not abundant. The main reason pertains to the actual state of the data service where one of the primary problem identified is the lack of sufficient professional staff, who could report on such matters. The situation is very similar in the aspect of legal framework of the data archives. On the other hand, the information about technical infrastructures were more exhaustive, which allowed a short per country analysis.

The political framework is the most important aspect for collaboration of non-members with CESSDA ERIC. According to ERIC membership regulations, CESSDA ERIC members are countries, and not organizations or institutions. That is why political support is of great importance for archiving service that wishes to join or collaborate with an ERIC. As a result of a broader range of information being available on this subject, it has been explored in detail and forms the major part of the report. Moreover, it contains detailed per country analysis of pertinent political circumstances. The analysis has been based on: a) information sources and data that relies on information collected in the project Task 3.2 - Audit of current status of data archive services in each ERA country, focusing here on the candidate countries¹, and b) additional information from the self-assessment survey conducted in Lisbon in May 2017 during the third Workshop of the SaW project.

¹ The self-assessment surveys were conducted at the end of 2016.

2. THE CURRENT STATE AND NEEDS OF THE NEW DATA ARCHIVES INVESTIGATED THROUGH 4 CATEGORIES

2.1. HUMAN RESOURCES – SKILLS, COMPETENCES

In the audit survey of the CESSDA SaW project the following questions tend to gather information about the skills and competences of the prospective CESSDA Service Providers:

- Q.1.3.4.1: Does your organisation have the appropriate number of staff to support all repository functions and services?
- Q. 3.2: The organisation has sufficient and appropriate technical infrastructure resources (e.g. suitable software, technical services, and appropriate management plans) to ensure that all functions and services of the repository are supported. (Information about the lack of skills)
- Q3.5.1: To ensure on-going access to and preservation of its holdings, the organisation has appropriate succession plans and/or contingency plans in place in case the repository ceases to operate or the governing or funding institution substantially changes its scope/obligations. (Information about staff expertise)
- Q4.1: 1.4. Please describe the main bodies / departments / units that the data archive service consists of

Number of staff to support all repository functions and services

The question on the ‘Number of staff to support all repository functions and services’ is one of the most important in the survey, according to the available human resources metrics. There were six possible responses available, asking the respondent to characterize the data archive with regard to staffing adequacy as ‘not defined’, ‘initial’, ‘repeated/partial’, ‘defined’, ‘managed’ or ‘optimized’.

In the case of the ‘not defined’ category there is no evidence that the organisation has defined the appropriate number of staff to support all functions and services. Furthermore, the answer includes the following statements: ‘the number of staff appears to be inadequate to support all functions and services. Many core competencies are missing.’

In the second category (‘initial’) there is some evidence that staffing is partially complete, due to lack of resources or possibility to employ qualified staff. And the organisation has not yet defined the appropriate staffing level to support all repository functions and services.

The third category, ‘repeated/partial’, suggests there is evidence that there is likely to be an appropriate number of staff to support all repository functions and services, however the organisation has not defined it yet.

The next category (‘defined’) suggests there is a defined level for the appropriate number of staff to support all functions and services.

The ‘managed’ category implicates appropriate staffing levels to support functions and service needs which are monitored and assessed at regular intervals and the monitoring is documented.

The last answer category (‘optimized’) suggests the organization has defined the appropriate staffing level which are reviewed in regular intervals with respect to the function and service

needs, and adjusted accordingly. If the answers indicate that four categories ('repeated/partial', 'defined', 'managed' or 'optimized') are not usual in the case of the given organization, only the 'not defined' and 'initial' levels are included. One of the main issues is the absence of a definition of the appropriate level of staffing. Another typical issue is the absence of permanent staff, or that the number of staff depends on funding or on current project. In those data archive services where the proto activities are being implemented, the lack of the permanent, full-time staff, is one of the largest problems.

The following two questions collect important information about the skills and the knowledge of the staff, but only one or two categories refer to these topics. One of these two questions is Q. 3.2: The organisation has sufficient and appropriate technical infrastructure resources (e.g. suitable software, technical services, and appropriate management plans) to ensure that all functions and services of the repository are supported. This question forms part of the 'Technical infrastructure and risk' chapter of the questionnaire. But two items, namely 'not defined' and 'initial', relate to information about the staff. The 'not defined' item is marked if the 'lack of skills and technology is inadequate to support all functions and services' is marked typical for the data archive. The 'initial' item shows that the organization is unable to employ qualified staff which causes problems and makes technical infrastructure operating challenging. Some organizations do not have these issues, but almost all of the new data archives have some difficulties with professional staffing. These problems appear in some of the data archives that have been operating for many years.

The question Q3.5.1 (To ensure on-going access to and preservation of its holdings, the organisation has appropriate succession plans and/or contingency plans in place in case the repository ceases to operate or the governing or funding institution substantially changes its scope/obligations) defines information about human resources, but only one item contains information about staff knowledge and expertise (whether all relevant staff is trained and is the success of training programs and staff knowledge being assessed). None of the organizations marked those items/answers. Part of the questionnaire refers to the structure of the organizations. In this chapter (Q4.1: 1.4.) it is asked to describe the main bodies / departments / units that the data archive service consist of. Due to their characteristics, mainly their small size, most of the archives involved in the survey do not have organisational subdivisions. Only one data service indicated that the data archive has significant structured divisions.

2.2. LEGAL FRAMEWORK

The survey of prospective CESSDA Service Providers explored a range of issues with legal considerations. Survey questions specifically explored:

- Q.1.1.1.2: Are there explicit written statements on the role, mandate, purpose and mission of the organisation; are the statements available for anyone to read?
- Q1.2.1.1: Does your organisation have sufficient knowledge and documentation on how (relevant aspects of) the (national or international) legislation applies to and affects the holdings and procedures of the organisation?
- Q1.2.1.4: Are service access procedures based on legal or contractual regulations that are settled in agreements between the service users and the repository; and the contractual and legal regulations, ensures that the parties do not infringe any intellectual property rights (IPR) of any other person(s) or institution(s)?

- Q.2.2.1: How would you characterize the general situation in your country with regard to clarification and support provided on legal and ethical aspects that facilitate social science data sharing (IPR, data protection, etc.)?

Beyond matters that relate to specific legal issues, the survey also explored archives' support of or compliance with national and other policy concerns that are not legally binding:

- Q.4.2.1: Are there open access (OA) projects or initiatives (e.g. OA promotion) in your country, funded either by the government or by grassroots?
- Q.2.1.3: How thoroughgoing it is that the public research funding organizations operating in social sciences in your country have issued the requirements or recommendations or show awareness about the following aspects of social science research data with associated metadata? Long-term curation for valuable research data assets, evaluated and selected in terms of reuse potential.

Responses to these questions indicate various levels of preparedness and maturity on the part of potential Service Providers regarding legal considerations and obligations. This report identifies some specific areas of concern, and reflects upon further considerations that reflect Service Providers' ability to act in conformance with and to reflect best practices in administering and reporting on regulatory matters.

2.2.1. THE SERVICE PROVIDER AS A RECOGNISED SERVICE ORGANISATION

National Service Providers in the CESSDA ERIC are authorised by the government of the member state to provide services within the national jurisdiction. This is also the case when a data archive has been active and has provided the catalysing activities that prompt a state to pursue membership of the ERIC. The survey questions listed above explore issues related to this fundamental concern, but do not explore fully the degree to which Service Providers are prepared to engage with representatives of government to initiate procedures that may lead to national membership of CESSDA ERIC.

Survey question 1.1.1.2 pertains to a Service Provider's mission statement and the existence of a governance framework that provides the mandate to operate, and approves the purpose and specific mission. Respondents indicate various levels of preparedness in this context, but the majority report that there is some documentary evidence available regarding mission and mandate, and several reports complete formal documentation. (Given the requirement in the Annex to the CESSDA Statutes that Service Providers obtain trust certification for their data archive, the specific expectations of the mission statement with regard to data management, etc., should be noted here as well.)

The organisational context of a Service Provider is also a matter with legal ramifications. The majority of existing Service Providers of CESSDA ERIC member states function within a broader organisational context-within a university, a national archive, etc. The legal status of these arrangements should be transparent and agreed between the authorising agent of the government and the host organisation in which the archive resides. They should be supported by a Memorandum of Agreement or other legal instrument, specifying terms and conditions of the arrangement and responsibilities of the authorising agent of the government and the host organisation. Given the need of data archives to act in conformance with the national and EU regulatory environments, the access provided to legal counsel should be a specific part of such

agreements (e.g., the Service Provider receives counsel from the authorising agent of the state, the host institution, or via some third-party mechanism).

2.2.2. CONFORMANCE TO THE REGULATORY ENVIRONMENT

Data archives acting as Service Providers for CESSDA ERIC members require awareness of a broad range of regulations that apply to social data, and they may have further obligations or responsibilities with regard to national policy or best practices of trusted repositories. These apply, for example, to data protection, intellectual property, Open Access policies or objectives, contractual arrangements with data providers, etc. The CESSDA SaW survey explored the extent to which prospective members were prepared to conform to this varied legal and ethical regulatory landscape.

2.2.3. PREPAREDNESS OF SERVICE PROVIDERS

CESSDA SaW Survey question Q1.2.1.1 raises the issue of an archive's preparedness across regulatory matters generally:

Does your organisation have sufficient knowledge and documentation on how (relevant aspects of) the (national or international) legislation applies to and affects the holdings and procedures of the organisation?

The survey responses indicate that several archives are not well informed in this area, without a command of documentation or knowledge of policy. None report that there is a regular process of surveying the regulatory landscape or of maintaining up-to-date documentation in either a 'managed' or 'optimized' fashion.

2.2.4. NATIONAL SUPPORT OF REGULATORY COMPLIANCE

CESSDA SaW survey question Q2.2.1 raises questions pertaining more specifically to data protection, intellectual property, etc.:

How would you characterize the general situation in your country with regard to clarification and support provided on legal and ethical aspects that facilitate social science data sharing (IPR, data protection...)?

Respondents to the CESSDA SaW Survey indicate either no awareness, 'initial' or 'partial' awareness of support on these regulatory issues; none identify robust supports with clearly 'defined' statements concerning the ethic and legality of data sharing, or 'managed' services that are widely available to support and encourage legally and ethically sound data sharing practice.

2.2.5. CONTRACTS AND AGREEMENTS

Other legal issues concern agreements between an archive and data producers whose data is made available through the archive, or data users who make use of the archives' data holdings. Such agreements between the archive and third parties are subject to legal regulations and terms agreed contractually between the archive and third parties. Survey question 1.2.1.4 pertains to these arrangements:

Are service access procedures based on legal or contractual regulations that are settled in agreements between the service users and the repository; and the contractual and legal regulations, ensures that the parties do not infringe any intellectual property rights (IPR) of any other person(s) or institution(s)?

Survey responses reveal various levels of maturity among respondents with regard to management of agreements with third parties. Responses range from archives with no defined agreements in place, to archives with ‘managed’ or ‘optimized’ procedures and practices. The majority, however, have some procedures in place to establish agreements with third parties.

2.2.6. SUCCESSION PLAN

CESSDA SaW question Q1.1.1.4 raises the issue of continuity in case the organisation ceases to operate.

Does your organisation have a medium-term (3 to 5 years) and long-term (>5 years) plan in place to ensure the continued availability and accessibility of data in case the organisation ceases to operate?

Survey responses reveal various levels of maturity among respondents with regard to ensuring availability and accessibility of the holdings in case the organisation ceases to operate. The responses range from archives with no succession plans at all to archives with a formal written succession/contingency plan.

2.2.7. Conformance with National and International Policies

Policies may exist at national or EU level with regard to matters such as Open Access to research outcomes, or may be promulgated by individual funding agencies or programmes. Such policies may emphasise the necessity of providing public access to publicly funded research outcomes, or may stress the importance or making data created through social research available for secondary use.

2.2.8. OPEN ACCESS

Open Access policies can be promulgated at various levels—internationally, nationally, by funders or individual organisations, etc. CESSDA SaW survey question 4.2.1 explores the following:

Are there open access (OA) projects or initiatives (e.g. OA promotion) in your country, funded either by the government or by grassroots?

The majority of respondents indicated that there were either government sponsored or grassroots Open Access projects or initiatives; only one respondent indicated a lack of awareness. The survey did not explore the question whether or how archives supported Open Access.

A more particular aspect of public policy regarding access to social data pertains to funders of public research in an archive’s jurisdiction, explored in survey question 2.1.3:

How thoroughgoing it is that the public research funding organizations operating in social sciences in your country have issued the requirements or recommendations or show awareness about the following aspects of social science research data with associated metadata? Long-

term curation for valuable research data assets, evaluated and selected in terms of reuse potential.

While a few archives report that “sufficient and documented knowledge on all relevant legislative aspects is available to all staff,” the majority of respondents indicated that no, limited or only partial documentation, was available.

2.3. TECHNICAL INFRASTRUCTURE

CESSDA Archives are based on similar but not the same technical solutions. When it comes to social data sharing, there are following standards to be implemented: data archive organization (OAIS), metadata description (DDI), catalogue systems DataverseEU, NESSTAR, or similar systems developed individually, as well as data file citation (DOI). Certification schemes like Data Seal of Approval, Nestor Seal, OAIS based ISO are in place. The fulfilment of these certification criteria is also a challenge for the established data archives. In case of new data archives, the issue of technical solutions themselves and their long-term maintenance seems to be a problem, given the very limited financial resources. However, the technical solutions are one of the areas that can be very easily addressed by using already-prepared software and established practices.

Technical infrastructure of the archives was examined by the CESSDA SaW survey with two questions:

- Q. 3.2: The organisation has sufficient and appropriate technical infrastructure resources (e.g. suitable software, technical services, and appropriate management plans) to ensure that all functions and services of the repository are supported. (Information about the lack of skills)
- Q4.1.1. In your country, are there existing technical infrastructures (national and/or institutional infrastructures in the social sciences such as repositories, online tools, databases, or online catalogues, etc.) that could possibly be used for or applied?

The organisation has defined the appropriate technological infrastructure resources required to be in place to support all repository functions and services.

(0) Not defined: There is no evidence that the organisation has defined what is the appropriate technology or level to support all functions and services. The technology appears to be inadequate to support all functions and services.

(1) Initial: There is evidence that the technological infrastructure is partially complete, either due to lack of resources or unable to employ qualified staff. The organisation has not defined the appropriate technological resources or level to support all repository functions and services.

(2) Repeated/partial: There is evidence that there is likely to be an appropriate level of technical infrastructure resources to support all repository functions and services, however the organisation has not defined what this level should be.

(3) Defined: The organisation has defined the appropriate technical infrastructure resources to support all functions and services.

(4) Managed: Technological infrastructure resources appropriate to support functions and service needs are monitored and analysed at regular intervals. The monitoring is documented.

(5) Optimized: At regular intervals, the appropriate technological infrastructure resources are reviewed with respect to the function and service needs and the description is adjusted accordingly.

For those who did not answer the question (more than half of the respondents) we expect the level of technological infrastructure at level (0) Not defined, mainly because there is not yet a functioning data archive in their country. Answers to this question assume self-evaluation of the technical infrastructure of social sciences archives in different European countries. It may be quite surprising that only one archive reaches the second highest level (managed) and one archive marked the 'defined' category. The other investigated data services are in the 'not defined', 'partial' or 'initial' categories, so the evaluation of the development of technical infrastructure highly differs between archives that are already members of CESSDA ERIC. Moreover, the analysis of existing technical infrastructures could possibly be used for or applied in the given country, but only 4 data services have answered positively.

In the following chapter, the state of the infrastructure in the new data archives is investigated in detail. This information is examined in the task 3.2 report, but here it covers the task 4.5 countries.

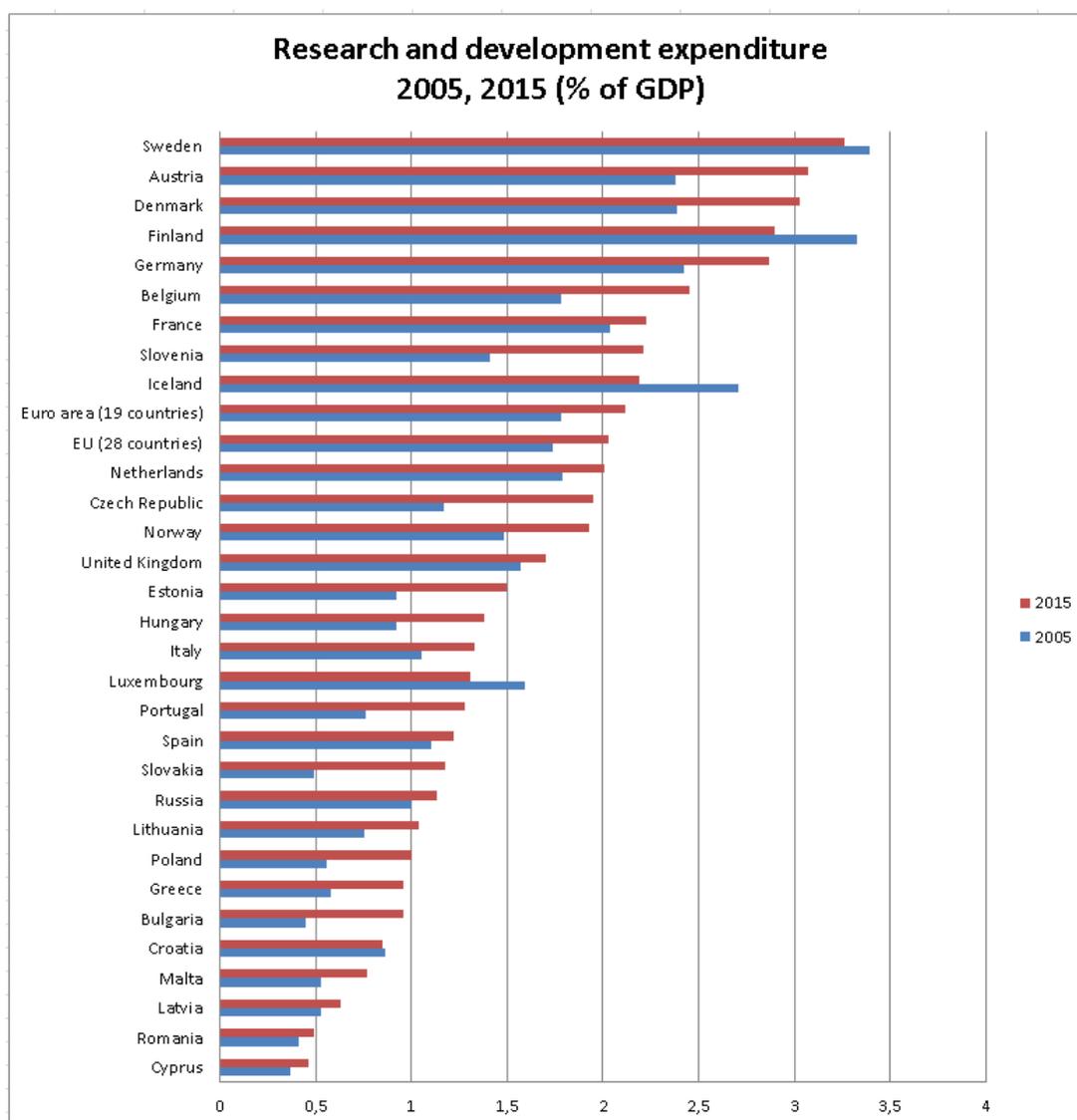
Table 1. Summary of the technical infrastructure aspects

	Data archive	Data catalogue	Metadata scheme
Albania	No	-	-
Bosnia and Herzegovina	No	-	-
Bulgaria	No	-	-
Luxemburg	No	-	-
Macedonia	No	-	-
Moldova	No	-	-
Iceland	Yes	Nesstar, not functional	DDI
Serbia	In preparation	-	-
Latvia	No	-	-
Cyprus	No	-	-
Croatia	In preparation	-	-
Estonia	Yes	Nesstar, not functional	DDI
Israel	No	Nesstar, not functional	DDI
Italy	Yes	Nesstar	DDI
Poland	Yes	Own web system	DDI
Romania	Yes	Own web system	DDI
Ireland	Yes	Nesstar, web	DDI
Slovakia	Yes	Own web system	DDI
Hungary	Yes	Own web system	DDI
Portugal	Yes	Nesstar, web	DDI
Austria	Yes	Nesstar	DDI
Belgium	In preparation	-	-

The rest of the archives is equipped with some technological infrastructure, but on the different levels of technical advancement. In case of some of the archives, it seems that the infrastructure is in a declining condition: web pages are not being updated, data catalogues are unavailable. Here it might be also a promising solution to adopt already existing infrastructure.

2.4. POLITICAL FRAMEWORK - EVIDENCE BASED INTRODUCTORY REFLECTIONS

Drawing from the suggested classification of the state of the archives with regard to the organizational as well as networking needs, etc. (Q.3.2), this report distinguishes four types of countries: a) countries with poor or no infrastructure, b) countries with promising infrastructure building proto-activities, c) countries with established national data service seeking support for becoming full CESSDA members and d) CESSDA members countries. In the last type, those countries that have very recently become CESSDA members are also included. Looking closer to this classification, while considering the wider political strategies and policies of each archives' country, it is useful to consider an index of R&D and GDP within the jurisdictions concerned (shown in Figure 1 below):



Source: Eurostat, data elaborated by the authors (http://ec.europa.eu/eurostat/statistics-explained/index.php/R_%26_D_expenditure).

According to the Eurostat database expenditures for R&D of candidate archives with promising infrastructure as well as countries that became full members during SaW implementation phase show that Belgium and Austria have more than 2,5% of GDP in an increasing rhythm and higher than the EU average, whilst Greece, Portugal and Hungary have also an increasing

percentage, though lower than EU average and not exceeding 1,5%. It can be a promising insight given that Portugal has recently overcome socio-economic difficult conjuncture, Hungary is slowly overcoming public budget deficiencies and Greece is still under a memorandum of economic surveillance. From that perspective, Iceland and Luxembourg have higher percentage of expenditures than the previous countries members, a fact that may lead to a membership in a near future if organizational and institutional matters may be overcome simultaneously. Regarding other countries' infrastructure classified as poor the percentages for countries in which data are available the picture is being shaped as follows: for Serbia and Montenegro data show an increasing and quite similar to certain EU countries percentage (exclusively for 2015, since there is no data available for 2005).

Other criteria concerning wider political framework rely upon different levels of commitment that can facilitate the establishment of a national archive and further to the membership of CESSDA ERIC. Based on previous experience (see Portugal and Greece presentations during the 1st Workshop held in The Hague 6/2016) efficient leadership and lobbying with major stakeholders can lead to positive outcomes.

Strong leadership of the archive as well as an archive's personnel commitment to serve strategies and objectives towards the users' communities and public authorities are necessary in the institutions. Setting up a Service Provider / Data Archive calls for leadership that excels in the relevant domain and that is highly motivated to promote the archive's mission and operation in support of funding requests, as well as with responsible public authorities/ministries².

Strong networks of academic institutions as users may be very effective in influencing political decision makers.

Recognition of a data archive at a national level can be achieved more efficiently through its integration in national roadmaps, participation in national projects etc.

Possibilities of participation in CESSDA projects can be an incentive for the political decision makers in taking a favourable attitude and decisions towards membership. The example of Belgium, Portugal, Hungary, Greece, and Austria that became CESSDA members while participating in CESSDA SaW can be interpreted as a positive insight as well.

A. COUNTRIES WITH POOR OR NO INFRASTRUCTURE

1. ALBANIA

Albania has underdeveloped social science sector and it does not have an established DAS for the social sciences or any other data archive. There are different data providers and producers, such as universities and other institutions. The main institution which supports development of science and technology, established in 2010, is the Agency for Research, Technology and Innovation (ARTI). Its mission is to evaluate, finance, monitor and manage programmes and projects in the fields of science, technology and innovation in Albania, and it has the tools to provide the research community support in data services and data archiving. ARTI is expected to lead the process of establishing the Albanian DAS. There are several potential candidates for the new SP, the Albanian statistical institute (INSTAT), Universities (i.e. the University of

² Kondyli, D.; Oliveira, C. (2016) Presentations given during the CESSDA SaW Training on Trust, Identifying Demand & Networking, Session 1: Widening CESSDA, The Hague, 16-17 June 2016, <http://cessdasaw.eu/calendar/ws-1-workshope-in-the-Hague-nl-16062016/ws-1-programme/>.

Tirana) and research institutes. Institute for Albanological Studies is also considered as a possible choice.

Capacities to manage both basic and applied research in Albania are limited and generally do not meet EU standards. There are different problems related to scientific infrastructures, and from a cost efficiency point of view, there is a need to align a national scientific infrastructure investment plan with investments being made at a regional (Western Balkans) level, in order to permit sharing of equipment and infrastructure (SEEDS report).

The research system is almost exclusively financed by the public sector. However, in the past years, there has been an expansion of bilateral co-operation with the private sector and thus some diversification of funding sources. According to the Albanian representative in the Lisbon meeting, the funding constraints, as well as the lack of awareness of the research community of social sciences regarding the importance of data preservation and dissemination, are amongst the main difficulties against the developing of a Data Archive. According to Culver, Martin & Maroulis³ state budget cuts for 2011–2012 to the national programmes managed by the ARTI) were an indication that overall availability of funding to support R&D is reduced and this has affected the development of social science and humanities research projects. Following the same source, in Albania and other non-EU Balkan countries, the allocation of IPA funds for the period 2011–2013 as well as funds for multi-beneficiary programmes and cross-border cooperation represent a big opportunity for organisations involved in SSH, particularly in the fields of law, political science, management, economics and education. The volume of funds allocated for SSH, as well as the number of projects are very important elements of the environment that can encourage or limit the development of consciousness, needs and infrastructure for sharing research data. The unfavourable situation in Albania, in terms of infrastructure that provides favourable conditions for Albanian researchers in SSH can be seen through the fact that researchers do not have centralized access, funded by public funds, to commercial bibliographic and full-text databases (i.e. WoS, Scopus, EBSCO, JSTOR etc.) or datasets (i.e. Bankscope), nor the financing for software licence.

Nevertheless, in the framework of SEEDS and RRPP projects, there are some efforts to improve the situation. The SEEDS project (South-Eastern European Data Services) aims to widen efforts to establish new data services in the countries of Albania, Kosovo, Macedonia, Montenegro, and to continue their integration in the national and international landscape for Croatia and Serbia. The project extends the capacities of selected partner institutions, and develops knowledge and tools related to data service infrastructures. It brings partner institutions into the fold of an international movement and network that will provide long-term benefits not only to these institutions, but more importantly to the respective national research communities, including more available data for secondary analyses (More: <http://seedsproject.ch/>).

Currently, Albania is involved with Open Access project named Open Data Albania (ODA). This is an ongoing project implemented by the Albanian Institute of Science (AIS).

2. BOSNIA AND HERZEGOVINA

Bosnia and Herzegovina has currently no established DAS. Different institutions were cited in the survey as infrastructures that could possibly be used for or applied to a new DAS. These are: a) The Human Rights Centre of the University of Sarajevo, b) the Analitika – Centre for

³ Culver, J., Martin, T., Maroulis, N. (2013) Funding Report - Monitoring Social Sciences and Humanities. METRIS, http://www.tma.ie/downloads/METRIS_funding_report_2013.pdf.

Social Research, a non-profit NGO, c) the PHAIDRA (Permanent Hosting, Archiving and Indexing of Digital Resources and Assets), an institutional repository system for permanent archiving, indexing and use of digital objects that was established within the Tempus project “New Library Services at Western Balkan Universities”, d) The National and University Library of Bosnia and Herzegovina and the National and University Library of the Republic of Srpska. The Universities of Sarajevo and Banja Luka were also named as institutions that could host a DAS for the social sciences. In the survey conducted within SERSCIDA project the Agency for Statistics of Bosnia and Herzegovina, the Institute for Statistics of the Federation of BiH, the Institute for Statistics of the Republic of Srpska (<http://rzs.rs.ba>), the Computer Centre of the University of Sarajevo (UTIC, <http://utic.ba>) and the Archives of Bosnia and Herzegovina (<http://arhivbih.gov.ba>) were also mentioned.

In Bosnia and Herzegovina, currently only 0.1% of GDP is invested in the social sciences, which is under the mean (0.14). This financial support has been qualified as “inadequate” by RRPP⁴. In comparison with other scientific disciplines, the social sciences receive 37.8 % of the gross domestic expenditure on research and development (GERD). Among the available figures, Bosnia and Herzegovina is the country that spends the most in the social sciences relatively to other scientific disciplines⁵. The number of researchers in the social sciences per capita (24) is however among the lowest⁶.

Currently, there is no policy, nor strategy to enable sustainable data access and sharing of publicly funded research data. The elaboration of a Data Management Plan and the deposit of data in an appropriate disciplinary repository are not yet required by public funders.

At present, in Bosnia and Herzegovina, support activities or services to encourage and facilitate open access are rare or not existing in the social science research community. According to the self-assessment survey, some NGOs publish and provide open access to publications, but this effort is not coordinated and does not ensue from a general policy on open access.

3. BULGARIA

Bulgaria is a country where no DAS activity, and only very limited DAS proto activity, exists. There are also no existing technical infrastructures that could possibly be used for or applied to a new DAS. One proto-activity towards establishing a data archive for the social sciences involving The Institute for the study of societies and knowledge of the Bulgarian Academy of Sciences has been identified.

According to the Bulgarian National Statistical Institute, the main sources of funding of social sciences are the government and the higher education sector, followed by business enterprises and the private non-profit sector. Additional European funding through Horizon 2020 and previously through FP7 & improved the situation to some extent, however, as the Bulgarian participant in 3.2. survey noted, “the country is with the lowest success rate for applications to Horizon 2020 per EU Member State and overall is among the countries with the lowest share of EU financial contribution to participants in signed grant agreements for both Horizon 2020 and FP7”. There is an initial recognition of the need to require DMP and to have disciplinary specific place of deposit and support services.

⁴ RRPP, Policy Briefs and Studies - Bosnia and Herzegovina, <http://www.rppp-westernbalkans.net/en/library/Policy-Briefs-and-Policy-Studies/Bosnia-and-Herzegovina.html>, accessed on 22.12.2016.

⁵ Social sciences spending in GERD percentages were available for 31 countries (among the countries target within this report). The minimum is 4.1 %, the mean 13.7% and the median 12.9%.

⁶ The number of researchers in social sciences per capita was available for 27 countries (among the countries target within this report). The range goes from 13 to 247. The mean is 90.5 and the median 85.

With regards to open access, no supporting activities were identified. However, Bulgaria participated in the expanded OpenAIREplus project in 2011 – 2014 and there with some institutional open access repositories.

4. LUXEMBURG

The Luxembourg Institute of Socio-Economic Research LISER (formerly CEPS/INSTEAD) was established in 2017, currently waiting a strategy to negotiate with the Ministry of Education and Research. The Institute was contacted to support 3.2 survey or help to find persons who could do it instead. The Centre did not respond, thus desk-top research was carried out by CESSDA staff. Results of the desk-top research were not sufficient at the policy level. More information was collecting from the Luxemburg representative in the Lisbon meeting. According to the representative, the main problem is that the centre is a public institution and it negotiates every 4 years its funding with the Ministry of Education and Research. Currently, there is funding for only two persons, thus it is hard to make plans and collect data. There is also an institutional problem, since there is no tradition of research universities. The Institute makes plans to elaborate a strategy of managing an Archive. Another issue is the difficulty to collect data and to change culture for data sharing, as Luxembourg is based on secrecy and privacy, in view of their bank policy, etc. There are data available, but the problem is to make it available to the public.

The University of Luxembourg and the University of Liège have both started a common repository “Open Repository and Bibliography” (ORBi) in 2013. Members of these Universities have to deposit all publications and bibliographic reference in the repository. Research data, however, is not regulated by this policy.

5. MACEDONIA

Macedonia does not have an established data service for the social sciences or any other data archive. The Macedonian representative in the Lisbon meeting stated that they are in the process to establish the Macedonian Social Science Data Archive (a proposed name). Currently, the Ministry of Education and Science is the main actor responsible for designing and implementing national policies related to scientific research. The Institute for Sociological, Political and Juridical Research (ISPJR) is involved in the international project SEEDS, which aims to establish a DAS in Macedonia. The Ministry of Education and Science of Macedonia supports the relative activities. Representatives of the Institute have participated in CESSDA SAW workshops, which were assessed as useful in terms of training and development. Besides ISPJR, some DAS proto-activities are also identified in the public university “Goce Delchev” in Stip, which has a repository powered by EPrints for keeping academic information and data in SSH. According to the Macedonian representative, the main difficulty against developing a Data Archive is the lack of state funding, as well as the unstable political situation of the country in the last two years.

Academic research in Macedonia is financed by 0.22% of GDP (2014), which is among the lowest levels of funding in Europe. The main financing of research projects is provided by the Ministry of Education and Science. In 2011 the share of public funding in the gross expenditure for research and development was 44.2% (which was an actual increase compared to 2000-2007), the share of international funding was 43%, while the share of private sector funding

was 12.8% (Erawatch, 2014)⁷. With regard to the social sciences, in 2008, these disciplines received only 8.6% of the total gross domestic expenditure for research. 65.7% of these sources came from the public sector, 15.8% from the private sector, 18.4% from foreign sources, and only 0.1% came from the non-profit sector (Josimovski, 2011, p. 21)⁸. What is striking when discussing research funding in Macedonia is the fact that more than 90% of national expenditure for research consists of salaries for the employed researchers and current expenditures for research institutions (Josimovski, 2011; State Statistical Office of the Republic of Macedonia, 2014)⁹. In addition to generally unfavourable financing conditions of SSH, researchers in Macedonia also lack the other forms of the infrastructural support for the productive research. Centralized access to commercial databases or datasets, or centralized procurement of the software licenses for scientific analysis, are non-existing or only occasionally provided by the funding entities.

According to the results from the SEEDS survey, the Ministry of education and science is unaware of the growing importance of Data Management Plans as an integral part of research projects, and does not provide incentives for sharing research data with associated metadata. Since 2012, there has been a growing awareness about open access to research data, thanks to the project “Initiative for Open Educational Resources” (OER), carried out by the Foundation Metamorphosis, a working group established for promoting the idea of free access to educational resources in Macedonia.

6. MOLDOVA

Moldova does not have an established data service for the social sciences or for any other field. The Academy of Sciences of Moldova (ASM) is the main coordinator of research and innovation activities. It is noted that ASM performs contradictory roles, as it is simultaneously policy developer, manager of major share of public R&I funds through the Centre for Fundamental and Applied Research Funding (CFARF) and the main research performer. The social science sector within the ASM system is underdeveloped. The National Bureau of Statistics of Moldova is the major producer of empirical data.

Another important feature of Moldovan science system is a strong separation between teaching and research activities. Such a system is considered outdated and removing those barriers in Moldova would contribute to a better use of its human resources and to the optimal use of research funding and research infrastructure. However, negative trends within Moldovan science system are reinforced by shrinking research community and intense brain-drain, which occurred internally and externally as research careers are not attractive for young researchers, the research community is rapidly ageing and the overall numbers for R&D personnel have decreased five-fold since the country's independence in 1991. The number of researchers per 1 million people is 4.5 times lower than in EU¹⁰.

Requirements about preparing DMP are non-existent. However, there is growing recognition of the value of research data and the need for long-term preservation. The funding agencies do not provide incentives for sharing research data with associated metadata.

⁷ Erawatch (2014) Erawatch Country profile Macedonia

⁸ Josimovski, S. (2011) Social Sciences and Humanities in the FYR. Macedonia. Metrix 2011 Report, European Commission, DG Research

⁹ State Statistical Office of the Republic of Macedonia (2014) Statistical Yearbook of the R. Macedonia.

¹⁰ https://rio.jrc.ec.europa.eu/sites/default/files/report/Moldova-PSF_PR_KIAX16004ENNOP.pdf

In 2013, the Moldovan government passed new National Strategy for the development of information society, the “Digital Moldova 2020”. Among three pillars of this strategy, two refer to infrastructures and data. Still, the legal and regulatory framework is not completely adjusted to the realities of the digital environment, and development of legal and ethical framework important for data sharing is in the initial phase.

An important channel to promote DAS activities is the active Open Access (OA) movement in Moldova through Electronic Resources for Moldova - Resurse Electronice pentru Moldova (REM) in partnership with European Federation for Intercultural Learning (EFIL) and International Network for the Availability of Scientific Publications (INASP). Since 2011, Moldova is also implementing a national open data initiative as part of its Governance e-Transformation Agenda. This initiative is encouraging the data sharing as government agencies and ministries are responsible for publication of government data.

7. SERBIA

In Serbia, no Data Archive Service exists yet. There are existing technical infrastructures within the social science field that could possibly be used or applied to a new DAS in social sciences and the activities are quite advanced. As a result of CERSCIDA project, SER-DAC (Serbian Data Centre in Social Sciences), formally established in 2014 as an organizational unit of the Institute of Economic Sciences Belgrade (IES), has been equipped with basic infrastructure for data preservation. The involvement, infrastructure and skills of the IES (or SER-DAC), makes it the more advanced institution for Serbia to form an institution that could host a DAS for the social sciences. Among existing national infrastructure, COBISS.RS may be used for enhancing visibility of archived data (by linking the records of articles in COBISS.RS to DAS). According to the Serbian representative in the Lisbon meeting, the lack of interest amongst researchers in supporting the idea of establishing an Archive, as well as the volatile state support are the main difficulties against the developing of the Data Archive. In the past, Serbia participated in SAW project as a partner and in some seminars for expertise.

Serbia has a developed SSH sector. The general intensity of investment in SSH is 0.17 of the GDP. Relative to other disciplines, the intensity of investment in SSH is 21,4% and the number of researchers in SSH per 100.000 capita is 63. The government and the higher education sector are the most important funders in SSH.

RDM policies are underdeveloped. Currently Serbia’s National Science Foundation does not require DMP, but there is growing recognition of the need to require them. Some support activities to encourage and facilitate OA exist in Serbia through the participation of the University Computing Centre in Belgrade (RCUB) in the OpenAIRE project within the Horizon 2020 programme.

8. LATVIA

There are no existing national and/or institutional technical infrastructures in social sciences in Latvia, and no active DAS. There have been, however, similar initiatives before, such as The Latvian Social Sciences Data Archive (LSSDA), founded in 1996 and hosted by the Institute of Philosophy and Sociology of Latvian Academy of Sciences. Through participation in the East European Data Archive Network and via cooperation with the SND, LSSDA managed to acquire skills and support to make accessible data from several national and international survey data series in Latvian. However, due to unsustainable funding, human resources policy and changes of institutional affiliation as a result of major transformations of social sciences landscape in

Latvia around 2006-2009, after several unsuccessful attempts to include LSSDA activities in national and international research and infrastructure project proposals, the archive is not active since 2009. The main difficulty against the developing of the Data Archive according to the Latvian representative in the Lisbon meeting is the lack of state support and funding.

There are more recent initiatives, most of which are related to developments of Open Data, aimed at better administration of research processes and outputs, including research data by different stakeholders, as well as single university repositories.

The Library of the University of Latvia is considering making a specific data repository for all sciences based on Dspace (UL already has <https://dspace.lu.lv/> for publications, articles, books, thesis). The National Library is considering remodelling their own repository of publications (<https://academia.lndb.lv/>) in order to include data files. This repository currently tries to collect the publications of all other smaller universities in Latvia.

In 2015, the Ministry of Culture of the Republic of Latvia has approved the Strategy for Digital Cultural Heritage as part of Guidelines for Cultural Policy 2014-2020. One of the main activities described in these guidelines is the development of infrastructure for any kind of digital content, so focus lies on libraries, museums and other cultural heritage institutions. Scientific publications and research data, their long-term preservation and online availability are, however, also included in the strategy.

National Library of Latvia has developed an Open Access academic repository in 2016, the ACADEMIA. Currently, however, repository does not include any research data. Taking into account the prospective developments and expressed interest, the repository should be considered as an optimal solution for prospective partner for establishing DAS.

Lack of clear and explicit declaration of RDM policy and funding that comes with it, as well as lack of support of different aspects of RDM are among the conditions limiting DAS development in Latvia, together with the fact that CESSDA is not identified among European RIs in the Ministry of Education and Science shortlist in the Guidelines for Science, Technology Development and Innovation for 2014-2020. But Latvia is considering trying to use scientific crowd sourcing and involve scientific community in voluntary work, asking them to deposit their data. They thus are looking forward to DataverseEU, even if that comes with a complicated installation process.

9. CYPRUS

SSH sector in Cyprus is well established by taking into account the amount of money allocated, but there is no DAS. Cyprus Institute and its Science and Technology in Archaeology Research Center (STARC) are considered as potential partners for future DAS. According to the available information, this institution develops tools for Digital Humanities (mainly archaeology). There was no formal collaboration in the past with CESSDA.

Recently, the National Research Agency launched a call to create a National Archive. The plan is to create a consortium with universities and the Statistical office. This consortium will be led by any Institution. The proposed name of the new Data Archive is CYSOSD, not officially approved yet. The major concern expressed by the Cypriot representative in the Lisbon meeting, is that social sciences may not be given priority in the new national funding.

Cyprus does not seem to have any requirements about preparing DMP. Public research funding organizations haven't issued any systematic requirements on open access to or long-term curation of the research data. In the document, Background Note in Open Access to Scientific Publications and Open Research Data published by the Directorate-General for Research and

Innovation (RTD) in 2016, it is mentioned that open access policies, institutional strategies or subject-based initiatives for research data are actually missing at the moment. It will be proposed that in cases of funded projects (by national or European funds), data should be opened to everyone.

B. PROMISING INFRASTRUCTURE BUILDING PROTO-ACTIVITIES.

1. CROATIA

In Croatia, there is no DAS yet, but advanced activities related to technical infrastructure, organisation and capacity building are provided on a national and institutional level. DAS proto-activities started during the SERSCIDA project (<http://www.serscida.eu/>) from 2012 to 2017 at the Faculty of Humanities and Social Sciences (FFZG) at the University of Zagreb. According to the respondents in the survey, FFZG has the knowledge and infrastructure for hosting the DAS in Croatia. Furthermore, in 2015, DABAR (Digital Academic Archives and Repositories) was established as the key component of the Croatian e-infrastructure's data layer. By establishing a repository within DABAR, an institution is provided with a reliable, flexible and ready-to-use environment that can be used to collect, store and disseminate various digital objects, as well as maintain those digital collections. Cooperation between FFZG and DABAR is established and different models of using DABAR or similar infrastructure for DAS operations are currently explored.

The most important source of research funding in SSH is the government and the higher education sector. The general intensity of investment in SSH is 0.11 of the GDP. Relative to other disciplines, the intensity of investment in SSH is 13.5% and the number of researchers in SSH per capita (pop. 100,000) is 63.

The government and universities provide access to bibliographic and full-text databases and to software licences, but not to datasets. RDM policies are developing. Currently Croatia's National Science Foundation does not require RDM, but there is growing awareness by public research funding organizations to consider offering incentives for sharing research data with associated metadata.

Croatia's support activities to encourage and facilitate OA are mostly related to access to publications. Most of the current scientific journals in Croatia, funded by the state, are freely available. In 2012, Croatian Open Access Declaration was published (<http://www.fer.unizg.hr/oa2012/declaration>). According to the Law on Science and Higher Education, from 2015 open access publishing is mandatory for graduate thesis and dissertations. Through FOSTER (Facilitate Open Science Training for European Research) workshops, series of lectures about Open science, Open access to publications and Open access to research data were held. Croatia is also involved in OpenAIRE project, where 50 partners aim to promote open scholarship and improve the discoverability and reusability of research publications and data.

2. ESTONIA

The Estonian Social Science Data Archive (ESSDA) was established at Tartu University in 1996 and it joined CESSDA in 1997. However, from 2000-ties, lack of sustainability in funding has severely limited development possibilities of ESSDA. The Archive was founded initially by Soros Foundation. Valid unit collections for data and IT equipment were established, but

because of the project- based financing, there was no sufficient funding. From 2008, there was only some project based funding and some support from the university in terms of infrastructure, PCs etc. Ministries deal only with national RIs and the only social science RI in the national Road map is ESS. ESSDA was forced to drop out from CESSDA in 2013, due to lack of commitment of the country to national membership of CESSDA. The foundation of a Social Science Data Archive is generally considered as important, but there is no funding.

General intensity of investment in SSH-sector in Estonia is 0.17%, which is above medium compared to other countries. Overall incentives and policy requirements in Estonia have not reached a level that provides appropriate level of sustainable conditions for data service provision. There are policy guidelines aiming at wider accessibility of research data and thus implying indirectly need for RDM activities. Although there is no explicit request for a RDM, there is some recognition of the need to require it in the future. Regarding open data from public sector, an Open Data Portal of Estonia has been established, but the volume of available data is currently low. Recommendations for depositing data in an appropriate disciplinary repository are on 'Initial' level as well.

3. ICELAND

Iceland did not participate in the 3.2 Survey. There is an Archive established in 2012, the Social Sciences Research Institute, mainly due to the recent evolutions on Open Access, with the hope to rescue the older datasets from the University of Iceland. The Archive is small and had no collaboration with CESSDA in the past. There is need for expertise, but according to the representative of Iceland in the Lisbon meeting, there is no funding available.

The Science and Technology Policy Council (STPC) is the main policy-making body in charge of design and coordination of Iceland's R&D policy. The Ministry for Education, Science and Culture is the key ministry in charge of R&D policy. Several other public bodies are responsible for promoting research and innovation, including the Icelandic Centre for Research (Rannis) playing a key role at an operational level in supporting research, innovation and culture in Iceland as well as in disseminating information. According to the representative of Iceland, there is need for the establishment of a formal agreement between the Ministry of Education and the Archive.

4. ISRAEL

In Israel, the social science sector is well developed, however, there is not an established DAS. The Israel Social Sciences Data Centre (ISDC) is not a national centre, but a unit established by the Faculty of Social Sciences at the Hebrew University of Jerusalem. The ISDC now houses approximately 1000 datasets and it is a centre that could act as a national DAS for the social sciences. Other sources of data include the Central Bureau of Statistics (CBS), the National Institute of Insurance (NIOI), central and local government agencies, research institutes as well as independent researchers from affiliated institutes. There are other topic related repositories in the country. Among these are the Israel National Election Studies (INES)t and the Israel Gerontological Data Centre (IGDC).

The main source of research funding comes from the government and the higher education sector. In 2014, funding reached 4.11% of GDP compared to the EU average of 2.03% in the same year.

Israel has not a clear strategy regarding requirements about RDM as part of on-going project. So far there are no national public research funding organizations that provide incentives for sharing data.

There are two Open Access repositories in the country. The first one is the Israeli Scholar Works, established in 2006 with the aim of collecting the scholarly output of Israel Academic Institutions and Jewish scholars all around the world on several topics. The second one is the Weizmann Institute of Science, an institutional repository with reports on Computer Science and Applied Mathematics. According to the Global Open Access Portal (GOAP), a key organization in dealing with Open Access publications is MALMAD, the Inter-University Centre for Digital Information Services.

5. ITALY

Unidata – Bicocca Data Archive, previously named ADPSS, is an interdepartmental centre of the University of Milan-Bicocca. In 2015, it started operating as Repository. It is housed in the Department of Sociology and Social Research. The centre is the Italian point of reference for the research data archiving and dissemination. UniData is totally publicly funded, through membership of seven Departments of the University of Milano-Bicocca. The Archive collects the research data from these departments. Currently, the Archive is working to obtain the Data Seal of Approval in order to establish a more standardized operation. For the time being, there is an effort in setting up the National Roadmap of RIs.

Funding of SSH in Italy is at the high level of development. Government and the higher education sector are the major funders of social sciences and humanities. However, according to the Italian representative in the Lisbon meeting, the main difficulty against the developing of the Data Archive is the lack of stable, national funding and support from the national institutions. Moreover, there is a lack of strong network with social sciences community and a lack of international orientation. RDM policy is not required by the national institutions and data management plans are underdeveloped. Data sharing and reuse are not very common. According to the relative estimations, the most popular data sharing channels in Italy are supplementary data in journals (alongside papers) which are ranked first in the self-assessment survey. Data is also shared via informal personal contacts (ranked second), data archives or repositories (third) and via project or personal websites. Incentives for data sharing are currently not existent, but there are data support services available for researchers that would facilitate data sharing.

6. POLAND

Poland has a developed social sciences and humanities sector. The most important institution in the area of social data preservation and open access to the research data is Polish Social Data Archive (ADS). It started to operate in 2004 with public funding. According to the respondents, the Archive is well developed regarding internal standards of data acquisition, archiving and publishing. A problematic issue is the low level of institutionalization of the Archive. ADS is not fully institutionalized, but it operates as a research programme within the two departments involved, the Sociology and the Philosophy Department of the University of Warsaw. Low personal resources represent another weak point for the full operation of the Archive as, according to the Polish representative in the Lisbon meeting, there are only two volunteers working in the Archive. Although the Archive provides access to 100 datasets, usually of high quality, there are 600 datasets pending to be archived on a voluntary basis.

There is a growing recognition of the need to require DMP in Poland, but defined enforceable rules on DMP in SSH field are still missing. The same can be said about the situation regarding depositing data in an appropriate disciplinary repository. There are nearly no open access policies/institutional strategies or subject-based initiatives for research data already in place and no steps towards more developed policy are expected in the near future.

7. ROMANIA

The national Romanian institution specialized in archiving electronic data collections obtained by social research is RODA established in 2002. The main goal of the Archive is to preserve data and to serve as an intermediary between the data owners and data users. RODA is housed within the Faculty of Sociology and Social Work at the University of Bucharest and has no permanent funding of any sort or a formal structure. RODA was supposed to participate in the network of CESSDA SPs, but the Romanian Ministry for Education and Research backed out in the very last moment in 2013.

The government and the higher education sector are the main funders of social sciences research. There is a low level of funding. According to the Romanian representative in the Lisbon meeting, the main difficulty for developing an Archive is the lack of funding, which prevents from hiring more personnel. With regard to the future of the Archive, the decision of Romania to join CESSDA is considered crucial. RODA has participated in former CESSDA activities and in the past, took a position in the executive board, as secretary.

There is no RDM policy setting in Romania. There seem to be no DMPs requirements in the project funding contracts.

C. ESTABLISHED NATIONAL DATA SERVICE SEEKING SUPPORT FOR BECOMING FULL CESSDA MEMBERS

1. IRELAND

The Irish Social Science Data Archive (ISSDA) was established in 2002. It is administratively and physically at University College Dublin and it is engaged regularly in CESSDA activities.

The major funding for the ISSDA comes from the University College Dublin and partial funding from the Irish Research Council. The Research Council is an associated agency of the Department of Education and Skills (DES) and operates under the aegis of the Higher Education Authority. The current Council holds different views. The ISSDA was the only one to get validation. What has not happened is that for bureaucratic reasons the Ministry has not yet moved forward in a timely way. According to the Irish representative in the Lisbon meeting, bureaucracy is the main difficulty in developing the Data Archive. The Research Council has recently undertaken a commitment to assess need of and vehicles for participation in European research infrastructures.

Policy for RDM has not been established by Irish funders or by the Higher Education Institutions, although discussions of the basis for potential policy development have become active since 2016. Promotion of Data Management Plans as part of the research lifecycle is limited to individual Higher Education Institutions and research organizations. There are regulations regarding data protection at both national and EU level. Some special provisions also apply to official data from the Central Statistics Office.

A national Open Access policy statement has been articulated by a high-level stakeholder group (2012), but has not been updated to address principles relating to research data. An Open Government Data Portal has been established with a focus on administrative information and promotion of a culture of data sharing amongst public-sector bodies. There is growing awareness of the desirability of making research data available for secondary use, promoted particularly by the emerging Open Science Policy Framework, EC policies, and international funders such as the Wellcome Trust.

D. CESSDA MEMBERS

4. AUSTRIA

After the former archive for social science data closed in 2014, “The Austrian Social Science Data Archive” (AuSSDA) was established in 2017. The current Archive took all datasets from the former Archive “Wisdom” and it is located in the University of Vienna with two additional locations in Graz and in Linz. The Archive collects the data from many surveys and it collaborates with the National Statistical office. At the time of the 3.2 survey, the Archive was in the conception phase, thus it was not possible to involve someone to take part.

The Austrian Science Fund FWF has launched at the beginning of 2016 the Programme “Open Research Data Pilot” that focuses on research data as part of an open science strategy. There is also an initiative, the Open Government Data (<https://www.data.gv.at/>), founded in 2011. However, according to the Austrian representative in the Lisbon meeting, open access is still not adequately developed.

2. BELGIUM

SOHDA is the Belgian preparatory project for sustainable archiving and sharing of research data in the humanities and the acting Belgian SP in the CESSDA ERIC. As it is a preparatory project, not much activity in data archiving has been developed yet. One of the aims of SOHDA is to provide support for reviving the former Belgian Archive for the Social Sciences (BASS) of the Université Catholique de Louvain, which includes about 500 datasets and it was operational until the 1990s. There are more objectives also, to develop standards for an operational Belgian SS data archive in close cooperation with CESSDA. As the representative of Belgium in the Lisbon meeting stated, it could be a fail if Belgium created an Archive without taking into account the linguistic representation as well. The project is funded by Belgian Federal Science Policy Department. Currently, there is no direct funding for archiving work. Research on BASS contents is financed by university research funding.

The financial stability, research capacities and results achieved in the field of social sciences are on the average. There are well established streams of research traditions and various types of research data coming from national and international studies, such as ESS, PISA and others. The situation with regard to requirements about preparing Data Management Plans as an integral part of on-going project activity is initial, as there is no active support (e.g. default expense categories or budget splitting taking into account DMP cost). It is probable that (post-approval) DMP's will become obligatory shortly at Flemish universities, and a DMP policy is likely to be officially endorsed before the end of 2017.

Requirements set by the Funding Agencies about archiving quality-assured data with associated metadata is developing. There is growing recognition of the need to have disciplinary specific places of deposit and support services and about the need for long-term preservation of the data. There are many small research data archives kept by research groups at universities, but none of these have received public funding for archiving and curation work.

3. HUNGARY

Hungary has very recently become a CESSDA member. TÁRKI Data Archive was established in 1985 and it is a long-term member of the CESSDA consortium. It has participated in international projects and in the data exchange between CESSDA members. TÁRKI's mission is the preservation of digital research datasets from domestic and international studies; keeping pace with technological change and participation in the development of data archiving standards; providing access to data collections of empirical studies for users' communities; facilitating effective data use by providing access to datasets. The Archive receives its funding from grants and research contracts, but still is not adequately funded and staffed.

The Government and Higher education and Private non-profit sector are the main funders of social sciences research. Funding is among the mid quantiles. The RDM policy setting is described as partial. There is the expectation or recommendation to have DMP in place, as well as to deposit data in an appropriate disciplinary repository or data archive.

Data sharing and reuse and the proportion of researchers able to access third party data they need are estimated as low (0-10%).

4. PORTUGAL

Portugal has very recently become a CESSDA member. The Portuguese Archive of Social Information (APIS) was established in 2009 and it is based at the Institute of Social Sciences, University of Lisbon (ICS-ULisboa). ICS-ULisboa is an associated laboratory dedicated to research and advanced training in social sciences. APIS mission is to increase the use of data resulting from social research carried out in Portugal, mainly from probabilistic surveys, through rigorous processing, long-term preservation and online dissemination of the data, ensuring that they are reliable and can be openly and friendly used for the purposes of public consultation, secondary analysis and pedagogical use. Its role is recognised as being part of a research infrastructure included in the national roadmap. The archive's service is publicly funded on a project-based funding and from EU funds.

In relation to the broader eco-system of DAS operation, Portugal is on the developed level in the development of social science sector. In relation to the RDM Policy setting, Portugal is on the developing level. There is a growing recognition on the importance of the Open Access principles and the government has been making recommendations in this domain. The country already has some Open Access infrastructures, namely the institutional repositories. In regard to management plans, some recommendations are expected to be in place next year. There are existing repositories but no formal requirements for depositing data. Data sharing culture is not so common.

5. SLOVAKIA

Slovakia has very recently become a CESSDA member. The Slovak Archive of Social Data (SASD) was established in 2004 and it is physically and institutionally located at the Institute

for Sociology of Slovak Academy of Sciences. It is not a separate department in the Institute, as it is managed and funded as a part of the library of the Institute for Sociology. The Archive personal and financial resources are limited. There is an ad hoc funding available from the projects at the Institute which finance the development of the data collection. Currently, another means of funding is the CESSDA SaW project. As the Slovak representative in Lisbon meeting stated, the Ministry supported the initiative concerning CESSDA and there is an expectation that in the near future the Archive will receive further institutional support from the Ministry of Education in order to expand staff and operation.

The overall development of SSH in Slovakia was evaluated at the medium level. The rank of the sources of research funding in social science by the amount they provide is as following:

1. abroad (international or cross-border) sources,
2. government and higher education sector, and
3. private non-profit sector.

Public research funding organizations operating in Slovakia provide no incentives for sharing research data and associated metadata.

The country participates in several international research series (ESSS, ISSP, European Values Studies etc.), but relevant institutions do not promote DPM.

The Slovak representative in Lisbon meeting stressed the importance of the new trend of open data and noted that Slovakia has prepared a national open access plan. According to the Survey, it is not very common in Slovakia to publish in journals that expect data used in the publication to be available for reuse from a trusted digital repository. National journals do not require research data to be publicly available and the publication activities of Slovak SSH scholars when it comes to the international journals are rather limited.

3. CONCLUSIONS

Summarizing the observations of the report, the state of the data services depends on two main conditions. First of these condition is the financing situation of the data archive or service and the continuity of the financing stability. Of course, the new established or almost established services are currently seeking possibilities to provide financing support, but if an ‘older’ data archive is not able to secure a stable financing platform, this creates difficulties in providing appropriate service. While investigating the human resources aspect this fact was made obvious; most former established data archives have problems with insufficient number of regular full-time employees. The second condition influencing the state of data services is the adequate support from key stakeholders of the scientific and political community.

These facts are highlighted in the aspect of technical infrastructure of the data archives too. CESSDA ERIC members or archives that are soon to become members, mostly possess an adequate infrastructure. The challenge for this group is to develop its technical infrastructure according to CESSDA standards: to deploy multilingual thesaurus to describe data, to implement persisted identifiers for data sets and to introduce a single sign-in system. If the stable financing of technical and technological infrastructure is to be provided, the following development within CESSDA framework can be feasible.

The responses from the new data services show, however, that preparedness to deal with the legal and policy expectations and requirements of potential national Service Providers ranges from a beginning level to relatively robust preparedness in some areas. Regarding EU policy and the specific requirements of CESSDA ERIC, CESSDA can offer important developmental supports, through training and documentation. While there is variability with regard to the regulatory and policy environments nationally, experiences from Service Providers of CESSDA ERIC member states regarding national jurisdiction, such as IPR (including data ownership) or legislation on archives, can be of benefit to prospective members.

Countries that have become members of CESSDA AS – at the very beginning of the CESSDA SaW project – or those who became members of CESSDA ERIC they may give a positive insight and reflections concerning the efforts to be made by candidate countries/archives in order to achieve membership. The challenges at the political level are multiple, taken into consideration that the archives have to respond to the actual needs and expectations of the research community and wider audience as well as to the criteria and prerequisites of national governments. In other words, they ought to justify their excellence, existence and usefulness since, if we recall Stein Rokan’ statement in the 1960s concerning the creation of Data Archives, “votes count... but resources decide the actual policies...”¹¹, and now we can add that the political will should also be taken into account. Thus, they should lobby – with their communities of users in order to increase visibility and transmit the importance of their usage and users’ impact to the political power and relevant institutions. Experience shows that dealing with political institutions remains a long and rather slow process and to accomplish success in achieving the final goal, namely membership for CESSDA ERIC, it is necessary to have: a) an established Data Archive, b) a users’ community and lobbying capacity, c) a favourable political conjuncture along with a defined national strategy for Open Data or the development of Research Infrastructures, National Roadmaps etc.

¹¹ Rokkan, S. (1966): “Norway: Numerical democracy and corporate pluralism”, in R.A. Dahl, *Political Opposition in Western Democracies*. New Haven: Yale University Press.

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